



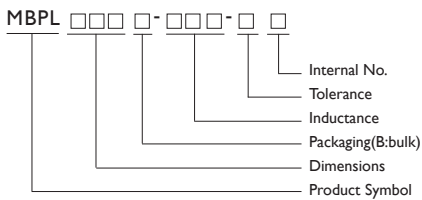
|     |                                                         |
|-----|---------------------------------------------------------|
| 2   | Multilayer Ferrite Chip Beads [ SB/PB/UP/NB/GB Series ] |
| 34  | Multilayer Ferrite Chip Beads [ BA Series ]             |
| 39  | Surface Mount Beads [ FB Series ]                       |
| 42  | EMI PC Beads [ SBC Series ]                             |
| 46  | Data Line EMI Filter [ SBCB Series ]                    |
| 49  | EMC Common Mode Filter [ SBCB Series ]                  |
| 52  | Multilayer Chip Inductors [ CL Series ]                 |
| 64  | Miniature Surface Mount Chip Inductors [ SQV Series ]   |
| 70  | Miniature Surface Mount Chip Inductors [ SQC Series ]   |
| 76  | Wound Chip Inductors [ NL Series ]                      |
| 91  | Wound Chip Inductors [ NLC Series ]                     |
| 104 | Wound Chip Inductors [ LS Series ]                      |
| 109 | Multilayer Chip Inductors High Frequency [ CLH Series ] |
| 118 | Wound Chip Inductors High Frequency [ CS Series ]       |
| 124 | Wound Chip Inductors High Frequency [ LCN Series ]      |
| 135 | Wound Chip Inductors [ CT Series ]                      |
| 135 | Wound Chip Inductors [ HC Series ]                      |
| 138 | Wound Chip Inductors [ HQ Series ]                      |
| 142 | DIP Power Inductors [ PMC Series ]                      |
| 143 | SMT Power Inductors [ SPMC Series ]                     |
| 144 | DIP Power Inductors [ MBPL Series ]                     |
| 147 | Mini Power Inductors [ GAB0312 Series ]                 |
| 148 | Mini Power Inductors [ NDA Series ]                     |
| 150 | Mini Power Inductors [ NAN Series ]                     |
| 153 | SMD Power Inductors [ NAS Series ]                      |
| 157 | SMD Power Inductors [ FV Series ]                       |
| 159 | SMT Power Inductors [ SCD Series ]                      |
| 178 | SMT Power Inductors [ SCDS Series ]                     |
| 193 | Shielded SMD Power Inductors [ SCDS Series ]            |
| 208 | UnShielded SMD Power Inductors [ SCMD Series ]          |
| 216 | SMD Power Inductors [ SDS0402 Series ]                  |
| 218 | Shielded SMD Power Inductors [ SDS0402BL Series ]       |
| 220 | SMD Power Inductors [ SDS0804 Series ]                  |
| 222 | SMD Power Inductors [ SDS1306 Series ]                  |
| 228 | SMD Power Inductors [ SLF Series ]                      |
| 241 | SMD Power Inductors [ SDT Series ]                      |
| 252 | SMD Power Inductors [ SSL0618 Series ]                  |
| 254 | SMD Power Inductors [ SSL0400 Series ]                  |
| 258 | UnShielded SMD Power Inductors [ SSL04LP Series ]       |
| 261 | SMD Power Inductors [ SSL Series ]                      |
| 276 | SMD Power Inductors [ SSL0503HC Series ]                |
| 278 | SMD Power Inductors [ SSL0804HC Series ]                |
| 280 | SMD Power Inductors [ SSL1306HC Series ]                |
| 286 | SMD Power Inductors [ STD Series ]                      |

## DIP Power Inductors

# MBPL Series

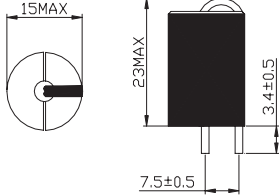


### PRODUCT IDENTIFICATION

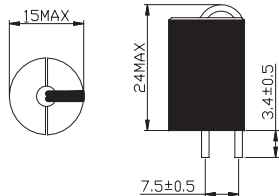


### SHAPE AND DIMENSIONS

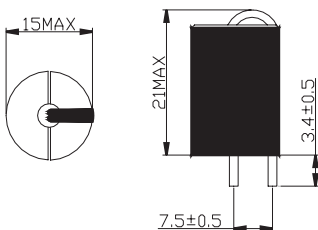
MBPL1319



MBPL1220



MBPL1217



Dimensions : mm

### FEATURES

Magnetic shielded construction for high density board assembly

High performance excellent DC current characteristics

Large energy storage capacity

Up to 40 amps continuous

Custom designs available

### ELECTRICAL CHARACTERISTICS MBPL SERIES

| PART NO.         | INDUCTANCE at (μH) | TOLERANCE (±%) | TEST FREQUENCY (KHZ) | SER (KHZ) MIN. | DC RESISTANCE (mΩ) MAX | RATED CURRENT (A) MIN |
|------------------|--------------------|----------------|----------------------|----------------|------------------------|-----------------------|
| MBPL1319B-R30M-N | 0.30               | 20%            | 100                  |                | 0.5                    | 60                    |
| MBPL1319B-R60M-N | 0.60               | 20%            | 100                  |                | 1.0                    | 60                    |
| MBPL1319B-R90M-N | 0.90               | 20%            | 100                  |                | 1.0                    | 40                    |
| MBPL1319B-IR2M-N | 1.20               | 20%            | 100                  |                | 1.0                    | 35                    |
| MBPL1220B-IR2M-N | 1.20               | 20%            | 100                  |                | 1.8                    | 30                    |
| MBPL1220B-IR5M-N | 1.50               | 20%            | 100                  |                | 1.8                    | 40                    |
| MBPL1217B-R30M-N | 0.30               | 20%            | 100                  |                | 0.7                    | 45                    |
| MBPL1217B-R60M-N | 0.60               | 20%            | 100                  |                | 1.5                    | 40                    |
| MBPL1217B-R90M-N | 0.90               | 20%            | 100                  |                | 1.5                    | 30                    |

Note: \* at 25MHZ \*\* at 7.9MHZ

When ordering please specify tolerance and packaging code.

Ex : PMC129- R60M-S Tolerance: M±20%, L±15%, K±10% Packaging: Clear Tape and Reel (Standard)

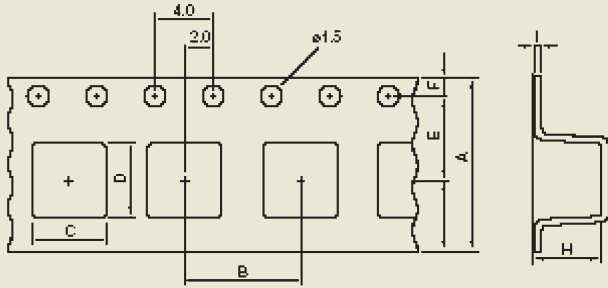
L Q : HP4287A SRF : HP8753D/E4991A RDC: Digital Multimeter SC-7401

Operating Temperature °C Range -40°C to +125°C



## TAPE DIMENSIONS

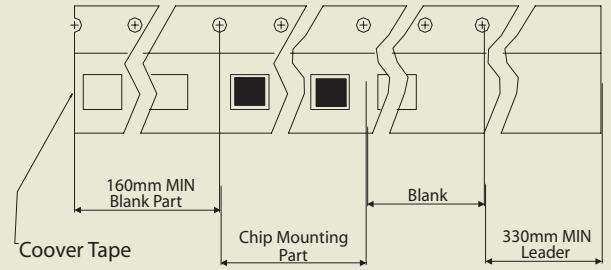
Dimensions : mm



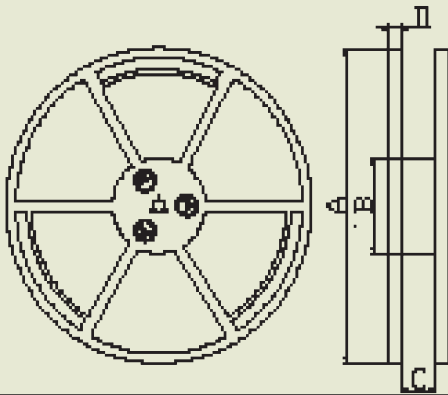
## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

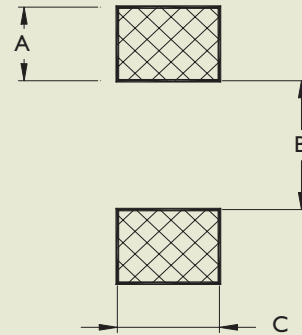


## REEL DIMENSIONS



## RECOMMENDED PATTERN

Land Pattern



Dimensions : mm

| TYPE   | TAPE DIMENSIONS |    |      |      |      |      | REEL DIMENSIONS |     |      | RECOMMENDED PATTERN |   |     | QUANTITY /REEL |
|--------|-----------------|----|------|------|------|------|-----------------|-----|------|---------------------|---|-----|----------------|
|        | A               | B  | C    | D    | E    | H    | A               | B   | C    | A                   | B | C   |                |
| PMC129 | 32              | 20 | 13.9 | 13.9 | 14.2 | 11.5 | 330             | 100 | 32.5 | 4                   | 6 | 6.2 | 250            |
| PMC127 | 32              | 20 | 13.9 | 13.9 | 14.2 | 9    | 330             | 100 | 32.5 | 4                   | 6 | 6.2 | 250            |
| PMC125 | 32              | 20 | 13.9 | 13.9 | 14.2 | 7    | 330             | 100 | 32.5 | 4                   | 6 | 6.2 | 300            |



PMC SERIES RELIABILITY TEST

I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                     | TEST CONDITIONS                                                                                                                                                   |
|-------|------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance :No Damage<br>L Change :within±10%<br>Q Change :within±30%<br>RDC:within Specificalion | Test device shall solderd on the substrate<br>Oscillation frequency:10 to 50 to 10HZ for IMin<br>Amplitude : 1.5mm<br>Time :2Hrs,for each Axis (X,Y&Z),Total 6Hrs |
| I-1-2 | Resistance to Soldering Heat | Appearance :No Damage                                                                             | Pre-heating: 150°C , IMin.<br>Solder Composition: Sn/Pb=63/37<br>Solder Temperature: 260±5°C<br>Immersion Time: 10 ±ISec.                                         |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                             | Pre-heating: 150°C , IMin.<br>Solder Composition: Sn/Pb=63/37<br>Solder Temperature: 230±5°C<br>Immersion Time: 4 ISec.                                           |

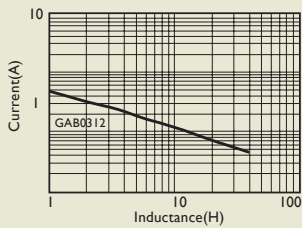
I-2 ENVIRONMENTAL PERFORMANCE

| NO    | ITEM                        | SPECIFICATION                                                                                         | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
|-------|-----------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------|-------------|---|-------|----|---|------|---|---|------|----|---|------|---|
| I-2-1 | Temperature Shock           | Appearance: No Damage<br>L Change: within ±10%<br>L Change: within ± 30%<br>RDC: within Speciflcation | 10 Cycles (Air to Air) I Cycles shall Consist of:<br>30Min.Exposure to -55°C<br>30Min.Exposure to -125°C<br>15Sec.Max.Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                   |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| I-2-2 | Temperature Cycle           |                                                                                                       | One Cycle <table><tr><th>Step</th><th>Temperature(°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-25±3</td><td>30</td></tr><tr><td>2</td><td>25±2</td><td>3</td></tr><tr><td>3</td><td>85±3</td><td>30</td></tr><tr><td>4</td><td>25±2</td><td>3</td></tr></table> Total: 100Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature(°C) | Time (Min.) | 1 | -25±3 | 30 | 2 | 25±2 | 3 | 3 | 85±3 | 30 | 4 | 25±2 | 3 |
| Step  | Temperature(°C)             | Time (Min.)                                                                                           |                                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| 1     | -25±3                       | 30                                                                                                    |                                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| 2     | 25±2                        | 3                                                                                                     |                                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| 3     | 85±3                        | 30                                                                                                    |                                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| 4     | 25±2                        | 3                                                                                                     |                                                                                                                                                                                                                                                                                                                                                     |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| I-2-3 | Humidity Resistance         |                                                                                                       | Temperature: 40±2°C<br>Relative Humidity: 90~95%<br>Time: 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                      |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| I-2-4 | High Temperature Resistance |                                                                                                       | Temperature: 85±3°C<br>Relative Humidity: 20%<br>Applied Current: Rated Current<br>Time: 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                       |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |
| I-2-5 | Low Temperature Resistance  |                                                                                                       | Temperature: -253°C<br>Relative Humidity: 0%<br>Time: 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                          |      |                 |             |   |       |    |   |      |   |   |      |    |   |      |   |

# GAB0312 Series

## Mini Power Inductors

### TYPICAL ELECTRICAL CHARACTERISTICS CURVE



TEST INSTRUMENT: HP 4285A, Zentech 301A  
INDUCTANCE-CURRENT (REFERENCE)

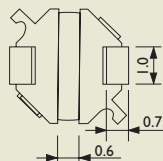
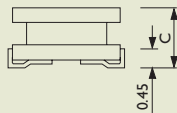
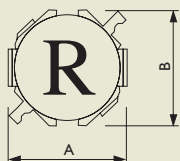
### ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N             | Inductance L( $\mu$ H) <sup>1</sup> | DCR ( $\Omega$ ) $\pm 20\%$ | IDC (A) MAX. <sup>2</sup> | Marking |
|-----------------|-------------------------------------|-----------------------------|---------------------------|---------|
| GAB0312T-1R0N-N | 1.0 $\pm 30\%$                      | 0.08                        | 1.40                      | A       |
| GAB0312T-1R8N-N | 1.8 $\pm 30\%$                      | 0.11                        | 1.10                      | C       |
| GAB0312T-2R2N-N | 2.2 $\pm 30\%$                      | 0.12                        | 1.00                      | D       |
| GAB0312T-2R7N-N | 2.7 $\pm 30\%$                      | 0.15                        | 0.95                      | E       |
| GAB0312T-4R7N-N | 4.7 $\pm 30\%$                      | 0.28                        | 0.75                      | H       |
| GAB0312T-5R6N-N | 5.6 $\pm 30\%$                      | 0.31                        | 0.68                      | I       |
| GAB0312T-6R8N-N | 6.8 $\pm 30\%$                      | 0.36                        | 0.62                      | K       |
| GAB0312T-7R5N-N | 7.5 $\pm 30\%$                      | 0.39                        | 0.60                      | L       |
| GAB0312T-100M-N | 10 $\pm 20\%$                       | 0.43                        | 0.53                      | M       |
| GAB0312T-150M-N | 15 $\pm 20\%$                       | 0.72                        | 0.44                      | O       |
| GAB0312T-220M-N | 22 $\pm 20\%$                       | 1.18                        | 0.33                      | R       |
| GAB0312T-330M-N | 33 $\pm 20\%$                       | 1.90                        | 0.26                      | T       |
| GAB0312T-470M-N | 47 $\pm 20\%$                       | 2.45                        | 0.23                      | V       |
| GAB0312T-680M-N | 68 $\pm 20\%$                       | 4.20                        | 0.17                      | X       |

1. Test Frequency 100KHZ 0.1Vrms.
2. DC Current at which the Inductance Drops 30%(typ) from its value without Current.
3. Operating Temperature Range -40°C to 85°C
4. Tolerance : M :  $\pm 20\%$ , N :  $\pm 30\%$
5. Packaging : Clear Tape and Reel (Standard)

### SHAPE AND DIMENSIONS

Dimensions : mm



Parts/reel:  
7" 1500pcs  
Tape width:  
12mm

| TYPE    | A             | B             | C      |
|---------|---------------|---------------|--------|
| GAB0312 | 3.2 $\pm 0.3$ | 3.2 $\pm 0.3$ | 1.2MAX |

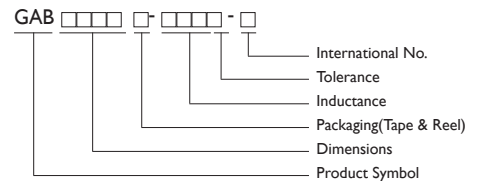
### FEATURES

- Low profile 1.2mm max.
- Maximum current rating of 1.4Amps.
- Density design, small size, and low cost.

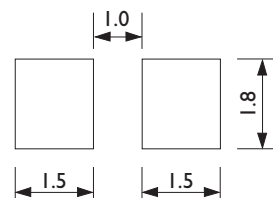
### APPLICATIONS

DC /DC converter  
Camcorder  
LCD TV  
MP3 - player  
Digital camera  
G.P.S  
Portable CDR-W  
PDA (desktop)

### PRODUCT IDENTIFICATION



### LAND PATTERNS PCB



## Mini Power Inductors

# NDA Series



(NDA0715)

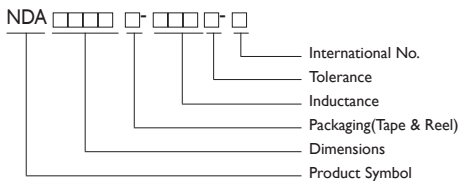
### FEATURES

Excellent property with high saturation for surface mounting  
Magnetically shielded & low radiation.  
Large rated current 2.5A max.  
low profile less than 1.5mm.

### APPLICATIONS

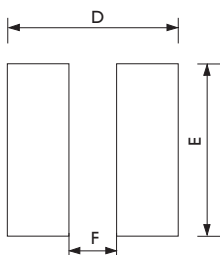
DC-DC converter  
LCD monitor  
Digital video and still cameras.  
Digital camera.  
Harddisk drivers and others.

### PRODUCT IDENTIFICATION



### LAND PATTERNS PCB

Dimensions : mm



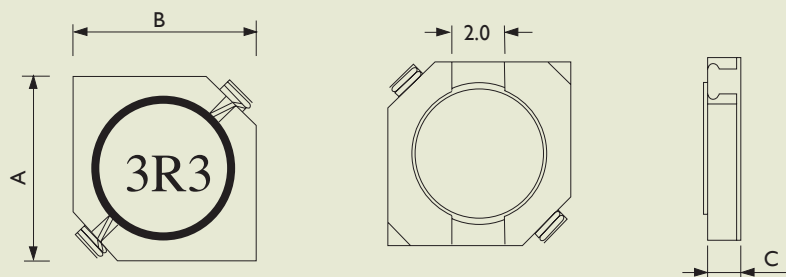
### ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N             | Inductance L( $\mu$ H) $\pm 20^1$ | DCR ( $\Omega$ ) MAX. | IDC (A) MAX. <sup>2</sup> |
|-----------------|-----------------------------------|-----------------------|---------------------------|
| NDA0715T-1R6 -N | 1.60                              | 0.045                 | 2.50                      |
| NDA0715T-2R2 -N | 2.20                              | 0.065                 | 2.00                      |
| NDA0715T-2R6 -N | 2.60                              | 0.075                 | 1.80                      |
| NDA0715T-3R0 -N | 3.00                              | 0.085                 | 1.70                      |
| NDA0715T-3R3 -N | 3.30                              | 0.096                 | 1.60                      |
| NDA0715T-3R6 -N | 3.60                              | 0.110                 | 1.50                      |
| NDA0715T-4R7 -N | 4.70                              | 0.130                 | 1.30                      |
| NDA0715T-470 -N | 47.0                              | 0.650                 | 0.45                      |

1. Test Frequency 100KHZ / 0.1Vrms.
2. DC current at which the Inductance drops 20%(typ) from its value without current.
3. Operating Temperature Range -40°C to 85°C
4. Tolerance : M : 20% , N : 30%
5. Packaging : Clear Tape and Reel (Standard)

### SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A             | B             | C      | D   | E   | F   |
|---------|---------------|---------------|--------|-----|-----|-----|
| NDA0715 | 7.0 $\pm$ 0.2 | 7.0 $\pm$ 0.2 | 1.5MAX | 7.3 | 7.3 | 2.0 |

# NDA Series

## Mini Power Inductors

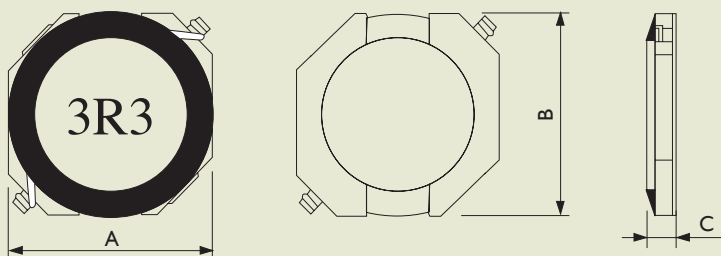
### ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N             | Inductance L( $\mu$ H) $\pm 20^1$ | DCR ( $\Omega$ ) MAX. | IDC (A) MAX. <sup>2</sup> |
|-----------------|-----------------------------------|-----------------------|---------------------------|
| NDA0715T-1R6 -N | 1.60                              | 0.045                 | 2.50                      |
| NDA0715T-2R2 -N | 2.20                              | 0.065                 | 2.00                      |
| NDA0715T-2R6 -N | 2.60                              | 0.075                 | 1.80                      |
| NDA0715T-3R0 -N | 3.00                              | 0.085                 | 1.70                      |
| NDA0715T-3R3 -N | 3.30                              | 0.096                 | 1.60                      |
| NDA0715T-3R6 -N | 3.60                              | 0.110                 | 1.50                      |
| NDA0715T-4R7 -N | 4.70                              | 0.130                 | 1.30                      |
| NDA0715T-470 -N | 47.0                              | 0.650                 | 0.45                      |

1. Test Frequency 100KHZ / 0.1Vrms.
2. DC current at which the Inductance drops 20%(typ) from its value without current.
3. Operating Temperature Range -40°C to 85°C
4. Tolerance : M : 20% , N : 30%
5. Packaging : Clear Tape and Reel (Standard)

### SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A       | B       | C      | D    | E    | F   |
|---------|---------|---------|--------|------|------|-----|
| NDA1015 | 10.3MAX | 10.3MAX | 1.5MAX | 10.4 | 10.4 | 3.0 |



(NDA1015)

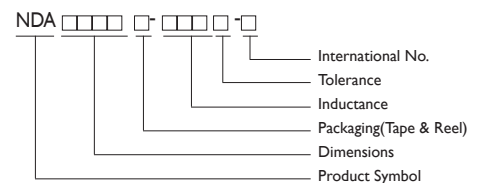
### FEATURES

Excellent property with high saturation for surface mounting  
 Magnetically shielded & low radiation.  
 Large rated current 3.0A max.  
 low profile less than 1.5mm.

### APPLICATIONS

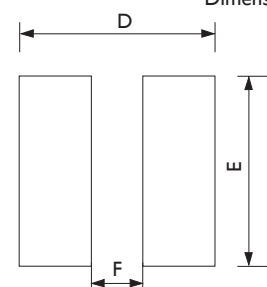
DC-DC converter  
 LCD monitor  
 Digital video and still cameras.  
 Digital camera.  
 Harddisk drivers and others.

### PRODUCT IDENTIFICATION



### LAND PATTERNS PCB

Dimensions : mm



## Mini Power Inductors

## NAN Series



(NAN0610)

## FEATURES

Very low profile.

Constructed enclosed in a rugged to provide optimum pick and place operations.

High inductance & high current ultra low profile power inductors.

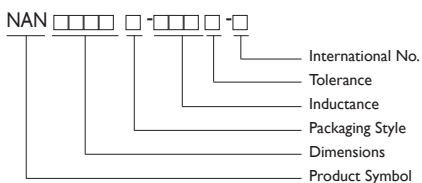
## APPLICATIONS

DC to DC converter

LCD

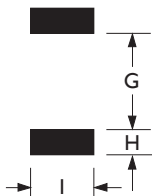
Mobile telephone

## PRODUCT IDENTIFICATION



## LAND PATTERNS PCB

Dimensions : mm



## ELECTRICAL CHARACTERISTICS : LEAD-FREE &amp; ROHS COMPLIANCE

| TYPE            | Inductance L( $\mu$ H) <sup>1</sup> | DCR ( $\Omega$ ) MAX. | IDC (mA) MAX. <sup>2</sup> |
|-----------------|-------------------------------------|-----------------------|----------------------------|
| NAN0610T-1R2M-N | 1.20                                | 0.08                  | 2100                       |
| NAN0610T-1R5M-N | 1.50                                | 0.10                  | 1900                       |
| NAN0610T-2R2M-N | 2.20                                | 0.12                  | 1600                       |
| NAN0610T-3R3M-N | 3.30                                | 0.16                  | 1300                       |
| NAN0610T-4R7M-N | 4.70                                | 0.20                  | 1100                       |
| NAN0610T-6R8M-N | 6.80                                | 0.32                  | 900                        |
| NAN0610T-100M-N | 10.0                                | 0.41                  | 800                        |
| NAN0610T-150M-N | 15.0                                | 0.55                  | 650                        |
| NAN0610T-220M-N | 22.0                                | 0.85                  | 500                        |
| NAN0610T-330M-N | 33.0                                | 1.30                  | 400                        |
| NAN0610T-470M-N | 47.0                                | 1.80                  | 350                        |
| NAN0610T-680M-N | 68.0                                | 2.50                  | 300                        |
| NAN0610T-101M-N | 100                                 | 3.50                  | 250                        |
| NAN0610T-151M-N | 150                                 | 5.00                  | 180                        |
| NAN0610T-221M-N | 220                                 | 7.00                  | 160                        |
| NAN0610T-331M-N | 330                                 | 15.0                  | 130                        |

1. Test Frequency 100KHZ / 0.1Vrms.

2. DC current at which the Inductance drops 10%(typ) from its value without current.

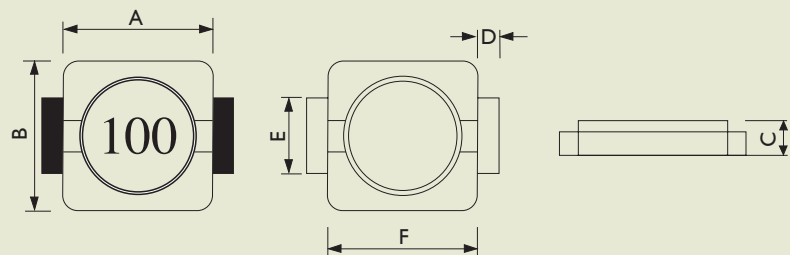
3. Operating Temperature Range -40°C to 85°C

4. Electrical specification at 25°C

5. Inductance : M :  $\pm 20\%$

## SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A      | B             | C      | D   | E   | F   | G   | H   | I   |
|---------|--------|---------------|--------|-----|-----|-----|-----|-----|-----|
| NAN0610 | 6.5MAX | 5.3 $\pm$ 0.3 | 1.0MAX | 0.9 | 3.0 | 4.5 | 4.0 | 1.0 | 2.3 |



## Mini Power Inductors

## NAN Series



## FEATURES

Very low profile.

Constructed enclosed in a rugged to provide optimum pick and place operations.

High inductance & high current ultra low profile power inductors.

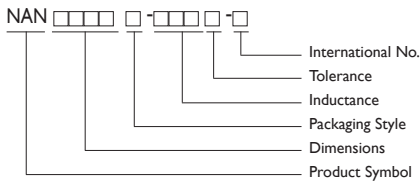
## APPLICATIONS

DC to DC converter

LCD

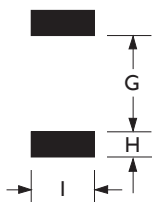
Mobile telephone

## PRODUCT IDENTIFICATION



## LAND PATTERNS PCB

Dimensions : mm



## ELECTRICAL CHARACTERISTICS : LEAD-FREE &amp; ROHS COMPLIANCE

| TYPE            | Inductance L( $\mu$ H) <sup>1</sup> | DCR ( $\Omega$ ) MAX. | IDC (mA) MAX. <sup>2</sup> |
|-----------------|-------------------------------------|-----------------------|----------------------------|
| NAN0620T-1R0M-N | 1.00                                | 0.04                  | 2500                       |
| NAN0620T-1R5M-N | 1.50                                | 0.06                  | 2200                       |
| NAN0620T-2R2M-N | 2.20                                | 0.07                  | 1800                       |
| NAN0620T-3R3M-N | 3.30                                | 0.11                  | 1400                       |
| NAN0620T-4R7M-N | 4.70                                | 0.12                  | 1200                       |
| NAN0620T-6R8M-N | 6.80                                | 0.19                  | 1100                       |
| NAN0620T-100M-N | 10.0                                | 0.30                  | 1000                       |
| NAN0620T-150M-N | 15.0                                | 0.40                  | 800                        |
| NAN0620T-220M-N | 22.0                                | 0.54                  | 600                        |
| NAN0620T-330M-N | 33.0                                | 0.74                  | 500                        |
| NAN0620T-470M-N | 47.0                                | 1.10                  | 450                        |
| NAN0620T-680M-N | 68.0                                | 1.60                  | 350                        |
| NAN0620T-101M-N | 100                                 | 2.30                  | 300                        |
| NAN0620T-151M-N | 150                                 | 3.20                  | 250                        |
| NAN0620T-221M-N | 220                                 | 5.70                  | 200                        |
| NAN0620T-331M-N | 330                                 | 8.20                  | 160                        |
| NAN0620T-471M-N | 470                                 | 10.8                  | 140                        |
| NAN0620T-681M-N | 680                                 | 17.2                  | 120                        |
| NAN0620T-102M-N | 100.0                               | 22.6                  | 80                         |

1. Test Frequency 100KHZ / 0.1Vrms.

2. DC current at which the Inductance drops 10%(typ) from its value without current.

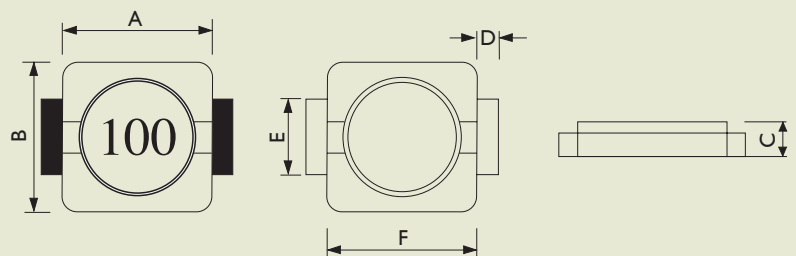
3. Operating Temperature Range -40°C to 85°C

4. Electrical specification at 25°C

5. Inductance : M : ±20%

## SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A      | B       | C      | D   | E   | F   | G   | H   | I   |
|---------|--------|---------|--------|-----|-----|-----|-----|-----|-----|
| NAN0620 | 6.5MAX | 5.3±0.3 | 2.0MAX | 0.9 | 3.0 | 4.5 | 4.0 | 1.0 | 2.3 |

# NAS Series

## SMD Power Inductors



(NAS0615)

### ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE            | Inductance L( $\mu$ H) $\pm 20^1$ | DCR ( $\Omega$ ) MAX. | IDC (A) MAX. <sup>2</sup> |
|-----------------|-----------------------------------|-----------------------|---------------------------|
| NAS0615T-1R6M-N | 1.6                               | 0.045                 | 2.5                       |
| NAS0615T-2R2M-N | 2.2                               | 0.065                 | 2.0                       |
| NAS0615T-2R6M-N | 2.6                               | 0.075                 | 1.8                       |
| NAS0615T-3R0M-N | 3.0                               | 0.085                 | 1.7                       |
| NAS0615T-3R3M-N | 3.3                               | 0.096                 | 1.6                       |
| NAS0615T-3R6M-N | 3.6                               | 0.110                 | 1.5                       |
| NAS0615T-4R7M-N | 4.7                               | 0.130                 | 2.0                       |

1. Test Frequency 100KHZ / 0.1Vrms.

2. Inductance drops 20%(typ) at rated Isat.

3. Operating Temperature Range -40°C to 85°C

4. Inductance : M :  $\pm 20\%$

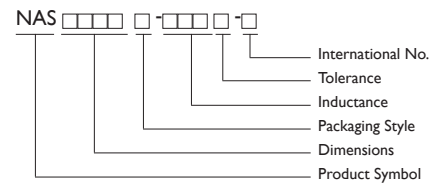
### FEATURES

Magetically shielded and low radiation  
 Very low DCR & better Q factor  
 Flat bottom for reliable surface mounting  
 Density design, small size, and low cost

### APPLICATIONS

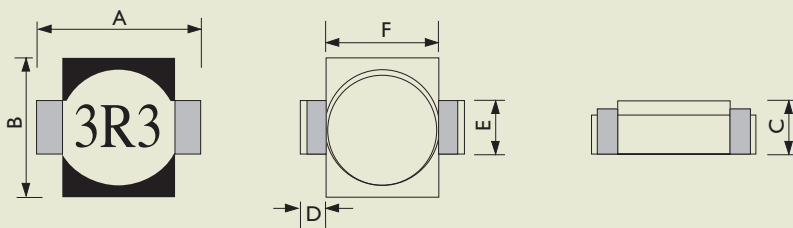
Mobile telephone.  
 Step-up or step-down converters.  
 Flash memory.

### PRODUCT IDENTIFICATION



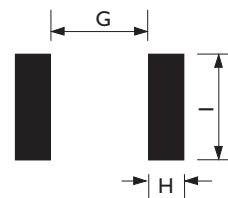
### SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A       | B             | C      | D   | E   | F   | G    | H    | I    |
|---------|---------|---------------|--------|-----|-----|-----|------|------|------|
| NAS0615 | 6.50MAX | 5.3 $\pm 0.3$ | 1.5MAX | 0.9 | 2.6 | 4.5 | 4.06 | 1.40 | 3.56 |

### LAND PATTERNS PCB



# NAS Series



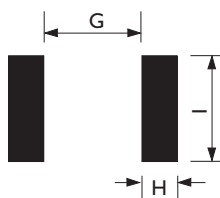
## Density design, small size, and low cost

## Flash memory.

NAS 

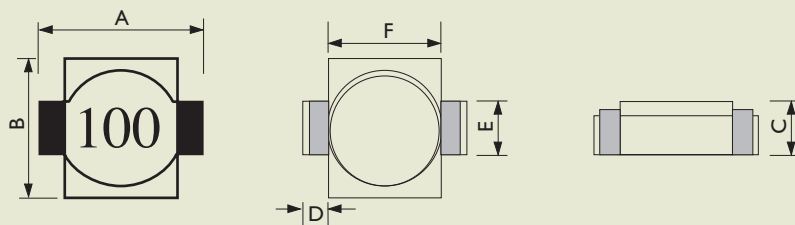
- International No.
- Tolerance
- Inductance
- Packaging Style
- Dimensions
- Product Symbol

Dimensions : mm



5. Inductance :  $M : \pm 20\%$

Dimensions : mm



| TYPE    | A       | B       | C      | D   | E   | F   | G    | H    | I    |
|---------|---------|---------|--------|-----|-----|-----|------|------|------|
| NAS0620 | 6.50MAX | 5.3±0.3 | 2.0MAX | 0.9 | 2.6 | 4.5 | 4.06 | 1.40 | 3.56 |

# NAS Series

## SMD Power Inductors

### ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | L( $\mu$ H) $\pm 20\%$ <sup>1</sup> | DCR ( $\Omega$ ) max | Insulation core-winding(M $\Omega$ ) | SRF typ(MHz) | IDC (A) MAX. <sup>2</sup> |
|-------------------|-------------------------------------|----------------------|--------------------------------------|--------------|---------------------------|
| NAS0620BLT-101M-N | 0.10                                | 0.95                 | >10                                  | 12           | 220                       |
| NAS0620BLT-151M-N | 0.15                                | 1.40                 | >10                                  | 10           | 200                       |
| NAS0620BLT-221M-N | 0.22                                | 1.70                 | >10                                  | 8            | 180                       |
| NAS0620BLT-331M-N | 0.33                                | 2.20                 | >10                                  | 6            | 160                       |
| NAS0620BLT-471M-N | 0.47                                | 3.80                 | >10                                  | 5            | 140                       |
| NAS0620BLT-681M-N | 0.68                                | 4.90                 | >10                                  | 4            | 120                       |
| NAS0620BLT-102M-N | 1.00                                | 9.00                 | >10                                  | 2            | 100                       |
| NAS0620BLT-152M-N | 1.50                                | 11.0                 | >10                                  | 1            | 80                        |
| NAS0620BLT-222M-N | 2.20                                | 19.0                 | >10                                  | 1            | 50                        |
| NAS0620BLT-332M-N | 3.30                                | 24.0                 | >10                                  | 1            | 40                        |
| NAS0620BLT-472M-N | 4.70                                | 30.0                 | >10                                  | 1            | 30                        |
| NAS0620BLT-682M-N | 6.80                                | 56.0                 | >10                                  | 0.9          | 20                        |
| NAS0620BLT-103M-N | 10.0                                | 74.0                 | >10                                  | 0.9          | 10                        |

1. Inductance tested at 0.1Vrms, 100KHZ..

2. 30°C Temperature rise.

3. Operating Temperature Range -40°C to 85°C

4. Electrical specification at 25°C

5. Inductance : M :  $\pm 20\%$



(NAS0620BL)

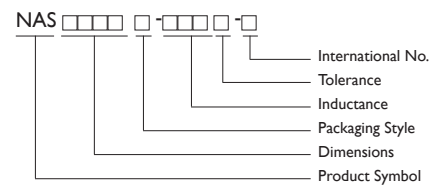
### FEATURES

Magetically shielded and low radiation  
 Very low DCR & better Q factor  
 Flat bottom for reliable surface mounting  
 Density design, small size, and low cost

### APPLICATIONS

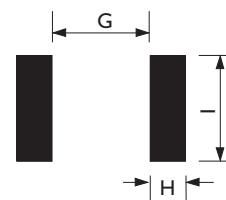
Mobile telephone.  
 Step-up or step-down converters.  
 Flash memory.

### PRODUCT IDENTIFICATION



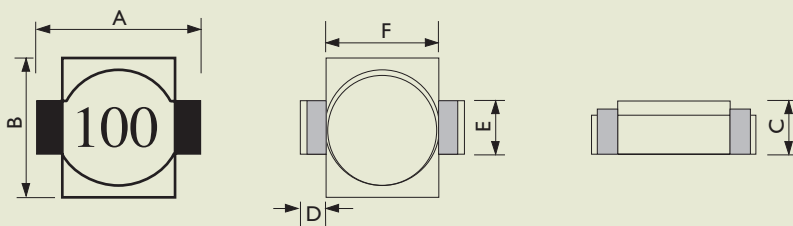
### LAND PATTERNS PCB

Dimensions : mm



### SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE      | A       | B             | C      | D   | E   | F   | G    | H    | I    |
|-----------|---------|---------------|--------|-----|-----|-----|------|------|------|
| NAS0620BL | 6.50MAX | 5.3 $\pm 0.3$ | 2.0MAX | 0.9 | 2.6 | 4.5 | 4.06 | 1.40 | 3.56 |

## SMD Power Inductors

## NAS Series



(NAS0630)

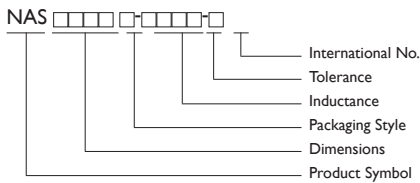
## FEATURES

Magetically shielded and low radiation  
 Very low DCR & better Q factor  
 Flat bottom for reliable surface mounting  
 Density design, small size, and low cost

## APPLICATIONS

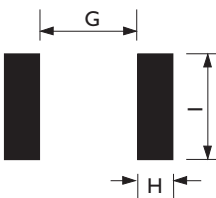
Mobile telephone.  
 Step-up or step-down converters.  
 Flash memory.

## PRODUCT IDENTIFICATION



## LAND PATTERNS PCB

Dimensions : mm



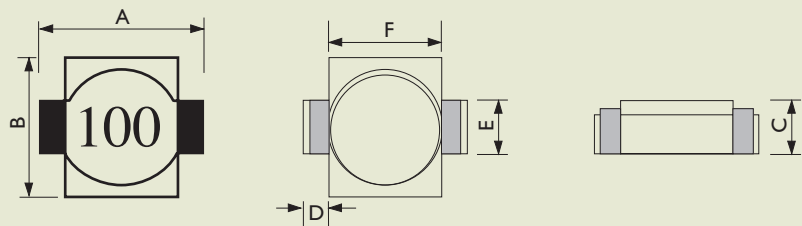
## ELECTRICAL CHARACTERISTICS : LEAD-FREE &amp; ROHS COMPLIANCE

| TYPE            | L( $\mu$ H) $\pm 20\%$ <sup>1</sup> | Q MIN      | DCR ( $\Omega$ ) max | SRF typ(MHz) | IDC (A) MAX. <sup>2</sup> |
|-----------------|-------------------------------------|------------|----------------------|--------------|---------------------------|
| NAS0630T-1R0M-N | 1.00                                | 20 @200KHZ | 0.042                | 250          | 3.00                      |
| NAS0630T-1R5M-N | 1.50                                | 30 @200KHZ | 0.045                | 125          | 2.80                      |
| NAS0630T-2R2M-N | 2.20                                | 40 @200KHZ | 0.050                | 120          | 1.80                      |
| NAS0630T-3R2M-N | 3.30                                | 40 @200KHZ | 0.055                | 120          | 1.60                      |
| NAS0630T-4R7M-N | 4.70                                | 40 @200KHZ | 0.060                | 105          | 1.40                      |
| NAS0630T-6R8M-N | 6.80                                | 40 @200KHZ | 0.065                | 50           | 1.20                      |
| NAS0630T-100M-N | 10.0                                | 40 @200KHZ | 0.075                | 38           | 1.00                      |
| NAS0630T-150M-N | 15.0                                | 40 @100KHZ | 0.090                | 33           | 0.80                      |
| NAS0630T-220M-N | 22.0                                | 40 @100KHZ | 0.110                | 25           | 0.70                      |
| NAS0630T-330M-N | 33.0                                | 40 @100KHZ | 0.190                | 20           | 0.60                      |
| NAS0630T-470M-N | 47.0                                | 40 @100KHZ | 0.230                | 20           | 0.50                      |
| NAS0630T-680M-N | 68.0                                | 40 @100KHZ | 0.290                | 15           | 0.40                      |
| NAS0630T-101M-N | 100                                 | 40 @100KHZ | 0.480                | 10           | 0.30                      |
| NAS0630T-151M-N | 150                                 | 40 @100KHZ | 0.590                | 9            | 0.26                      |
| NAS0630T-221M-N | 220                                 | 40 @100KHZ | 0.770                | 6            | 0.22                      |
| NAS0630T-331M-N | 330                                 | 40 @100KHZ | 1.400                | 5            | 0.20                      |
| NAS0620T-471M-N | 470                                 | 40 @100KHZ | 1.800                | 4            | 0.19                      |
| NAS0630T-681M-N | 680                                 | 40 @100KHZ | 2.200                | 3            | 0.18                      |
| NAS0630T-102M-N | 1000                                | 40 @100KHZ | 3.400                | 2            | 0.15                      |
| NAS0630T-152M-N | 1500                                | 50 @100KHZ | 4.200                | 2            | 0.12                      |
| NAS0630T-222M-N | 2200                                | 50 @100KHZ | 8.500                | 2            | 0.10                      |
| NAS0630T-332M-N | 3300                                | 50 @100KHZ | 11.00                | 1            | 0.08                      |
| NAS0630T-472M-N | 4700                                | 50 @100KHZ | 13.90                | 1            | 0.06                      |
| NAS0630T-682M-N | 6800                                | 50 @100KHZ | 25.00                | 1            | 0.04                      |
| NAS0630T-103M-N | 10000                               | 50 @100KHZ | 32.80                | 0.8          | 0.02                      |

1. Inductance tested at 0.1Vrms, 100KHZ..
2. 30°C Temperature rise.
3. Operating Temperature Range -40°C to 85°C
4. Electrclal specification at 25°C
5. Inductance : M :  $\pm 20\%$

## SHAPE AND DIMENSIONS

Dimensions : mm



| TYPE    | A       | B             | C      | D   | E   | F   | G   | H    | I    |
|---------|---------|---------------|--------|-----|-----|-----|-----|------|------|
| NAS0630 | 6.50MAX | 5.3 $\pm$ 0.3 | 3.0MAX | 0.9 | 2.6 | 4.5 | 4.0 | 1.40 | 3.56 |

## SMD Power Inductors

|                                                          |
|----------------------------------------------------------|
| PDA/Notebook/Desktop/Server applications.                |
| High current POL converters.                             |
| Low profile, high current power supplies.                |
| Battery powered devices                                  |
| DC/DC converters in distributed power systems.           |
| DC/DC converter for Field Programmable Gate Array(FPGA). |

|                                                           |
|-----------------------------------------------------------|
| Lowest height(5.5mm) in this package footprint.           |
| Shielded construction.                                    |
| Frequency range up to 5.0MHz.                             |
| Lowest DCR/uH, in this package size.                      |
| Handles high transient current spikes without saturation. |
| Ultra low buzz noise, due to composite construction.      |
| 100% lead(Pb) free                                        |
| • Tolerance :G=±2%, J=±5%, K=±10%                         |

**FV**  Internal No.  
Tolerance  
Inductance  
Packaging Style  
Dimensions  
Product Symbol

Technical drawing of the FV0705 component. The drawing includes a top view and a side view. The top view shows a square component with a central square area labeled '220'. The side view shows the component's profile with mounting tabs. Dimensions are indicated: A is the height, B is the width, and C(MAX) is the maximum thickness.

| TYPE   | A         | B         | C(MAX) |
|--------|-----------|-----------|--------|
| FV0705 | 6.86±0.38 | 6.47±0.25 | 5.5    |

Technical drawing of a rectangular plate. The main drawing shows a rectangle with a horizontal line extending from the left side. A dimension line indicates the height is  $C$ . A detail view of the bottom edge shows a rectangular feature with a width of  $3.43$  and a height of  $3.71$ . The overall height of the plate is  $7.37$ .



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE           | L(μH)±20% | DCR MAX(Ohms) | IDC <sup>2</sup> (A)MAX |
|----------------|-----------|---------------|-------------------------|
| FV0705T-R10M-N | 0.10      | 0.0017        | 30.0                    |
| FV0705T-R22M-N | 0.22      | 0.0032        | 21.0                    |
| FV0705T-R33M-N | 0.33      | 0.0041        | 18.0                    |
| FV0705T-R47M-N | 0.47      | 0.0065        | 13.5                    |
| FV0705T-R68M-N | 0.68      | 0.0094        | 11.0                    |
| FV0705T-R82M-N | 0.82      | 0.0118        | 10.0                    |
| FV0705T-1R0M-N | 1.00      | 0.0142        | 9.00                    |
| FV0705T-1R5M-N | 1.50      | 0.0212        | 7.50                    |
| FV0705T-2R2M-N | 2.20      | 0.0340        | 6.50                    |
| FV0705T-3R3M-N | 3.30      | 0.0516        | 5.00                    |
| FV0705T-4R7M-N | 4.70      | 0.0630        | 4.50                    |
| FV0705T-6R8M-N | 6.80      | 0.0950        | 3.50                    |
| FV0705T-8R2M-N | 8.20      | 0.1060        | 3.00                    |
| FV0705T-100M-N | 10.0      | 0.1290        | 2.50                    |

1. Inductance tested at 0.1 Vrms, 100KHz..  
2. 40C temperature rise, DC current at which the inductance drops 20%(typ) from its value without current.  
3. Operating temperature range -40°C to 85°C  
4. Electrical specifications at 25°C  
5. Inductance : M=±20%

# SMT Power Inductors

Dimensions : mm

### High saturation for surface mounting

Various high power surface mountable type inductors are superior to high saturation. These are also magnetic shielding type for consideration against radiation.

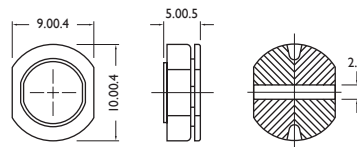
VRT, OA equipment, LCD television set, notebook computer, portable communications equipment, DC/DC converters, etc.

SCD 

- Packing : T : Tape and Reel
- Tolerance : K $\pm$ 10%;M $\pm$ 20%
- Note : YAGEO will start to release SCD Series inductor with lead-free terminals that meet SONY SS-00259's criterion for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SCD0403T-IR0-N

## SCDR105B

(10 $\mu$ H ~ 470 $\mu$ H)





SCD STANDARD SPECIFICATIONS

Electrical Characteristics

Standard Specifications

| Stamp | Inductance<br>(μH) | D.C.R(Ω)Max. |              |              |             |             |             |             |             |             |             |             |             |               |
|-------|--------------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
|       |                    | SCD<br>0301  | SCD<br>03015 | SCD<br>03021 | SCD<br>0403 | SCD<br>0501 | SCD<br>0502 | SCD<br>0503 | SCD<br>0504 | SCD<br>0703 | SCD<br>0705 | SCD<br>1004 | SCD<br>1005 | SCDR<br>1005B |
| 1R0   | 1.0                |              |              | 2.080        | 3.80        | 4.00        | 4.50        | 4.50        |             |             | 3.70        |             |             |               |
| 1R2   | 1.2                |              |              |              |             |             |             | 4.20        |             |             |             |             |             |               |
| 1R4   | 1.4                |              |              | 1.860        | 3.30        | 3.60        | 4.00        |             |             |             | 3.70        |             |             |               |
| 1R5   | 1.5                |              |              |              |             |             |             | 4.10        |             |             |             |             |             |               |
| 1R8   | 1.8                |              |              | 1.800        | 2.91        | 3.00        | 3.30        | 3.70        |             |             | 3.70        |             |             |               |
| 2R2   | 2.2                | 1.08         | 0.79         | 1.390        | 2.60        | 2.65        | 2.94        | 3.50        |             |             |             |             |             |               |
| 2R7   | 2.7                |              |              | 1.320        | 2.43        | 2.20        | 2.50        | 3.20        |             |             | 3.70        |             |             |               |
| 3R3   | 3.3                | 0.92         |              | 1.250        | 2.15        | 2.11        | 2.35        | 2.80        |             |             |             |             |             |               |
| 3R9   | 3.9                |              |              | 1.200        | 1.98        | 2.00        | 2.20        | 2.60        |             |             | 3.70        |             |             |               |
| 4R7   | 4.7                | 0.74         | 0.65         | 1.130        | 1.70        | 1.80        | 2.00        | 2.50        |             |             | 3.50        |             | 2.60        |               |
| 5R6   | 5.6                |              |              | 0.910        | 1.60        | 1.60        | 1.80        | 2.40        |             |             | 3.30        |             |             |               |
| 6R8   | 6.8                | 0.63         |              | 0.850        | 1.41        | 1.50        | 1.70        | 2.20        |             |             | 3.10        |             | 4.33        |               |
| 8R2   | 8.2                | 0.58         |              | 0.820        | 1.26        | 1.30        | 1.40        | 2.00        |             |             | 2.70        |             |             |               |
| 100   | 10                 | 0.5          | 0.45         | 0.740        | 1.15        | 1.10        | 1.20        | 1.80        | 1.44        | 1.44        | 2.30        | 2.38        | 2.60        | 2.06          |
| 120   | 12                 | 0.46         |              | 0.640        | 1.05        | 1.05        | 1.18        | 1.75        | 1.40        | 1.39        | 2.00        | 2.13        | 2.45        | 1.94          |
| 150   | 15                 | 0.45         | 0.30         | 0.600        | 0.92        | 1.00        | 1.15        | 1.70        | 1.30        | 1.24        | 1.80        | 1.87        | 2.27        | 1.72          |
| 180   | 18                 |              |              | 0.540        | 0.84        | 0.95        | 1.10        | 1.60        | 1.23        | 1.12        | 1.60        | 1.73        | 2.15        | 1.58          |
| 220   | 22                 | 0.35         | 0.25         | 0.500        | 0.76        | 0.90        | 1.00        | 1.50        | 1.11        | 1.07        | 1.50        | 1.60        | 1.95        | 1.42          |
| 270   | 27                 | 0.32         |              | 0.430        | 0.71        | 0.77        | 0.86        | 1.40        | 0.97        | 0.94        | 1.30        | 1.44        | 1.76        | 1.32          |
| 330   | 33                 |              | 0.20         | 0.400        | 0.64        | 0.68        | 0.76        | 1.10        | 0.88        | 0.85        | 1.20        | 1.26        | 1.50        | 1.16          |
| 390   | 39                 |              |              | 0.370        | 0.59        | 0.67        | 0.75        | 1.00        | 0.80        | 0.74        | 1.10        | 1.20        | 1.37        | 1.10          |
| 470   | 47                 |              | 0.17         | 0.360        | 0.54        | 0.66        | 0.73        | 0.90        | 0.72        | 0.68        | 1.10        | 1.10        | 1.28        | 1.00          |
| 500   | 50                 |              |              | 0.330        |             | 0.61        |             |             |             |             |             |             |             |               |
| 560   | 56                 |              |              | 0.310        | 0.50        | 0.50        | 0.55        | 0.85        | 0.68        | 0.64        | 0.94        | 1.01        | 1.17        | 0.93          |
| 680   | 68                 |              | 0.13         | 0.300        | 0.467       | 0.47        | 0.52        | 0.80        | 0.61        | 0.59        | 0.85        | 0.91        | 1.11        | 0.85          |
| 750   | 75                 |              |              | 0.290        |             | 0.46        |             |             |             |             |             |             |             |               |
| 820   | 82                 |              |              | 0.280        |             | 0.45        | 0.50        | 0.65        | 0.58        | 0.54        | 0.78        | 0.85        | 1.00        | 0.79          |
| 101   | 100                |              | 0.10         | 0.250        | 0.40        | 0.36        | 0.40        | 0.60        | 0.52        | 0.51        | 0.72        | 0.74        | 0.97        | 0.72          |
| 121   | 120                |              |              | 0.200        |             | 0.32        | 0.36        | 0.58        | 0.48        | 0.49        | 0.66        | 0.69        | 0.89        | 0.63          |
| 151   | 150                |              |              | 0.190        |             | 0.270       | 0.30        | 0.43        | 0.40        | 0.40        | 0.58        | 0.61        | 0.78        | 0.55          |
| 181   | 180                |              |              | 0.170        |             | 0.230       | 0.26        | 0.41        | 0.38        | 0.36        | 0.51        | 0.56        | 0.72        | 0.50          |
| 221   | 220                |              |              | 0.160        |             | 0.220       | 0.25        | 0.38        | 0.35        | 0.31        | 0.49        | 0.53        | 0.66        | 0.47          |
| 271   | 270                |              |              | 0.140        |             | 0.190       | 0.21        | 0.35        | 0.29        | 0.29        | 0.42        | 0.45        | 0.57        | 0.41          |
| 301   | 300                |              |              | 0.135        |             | 0.180       |             |             |             |             |             |             |             |               |
| 331   | 330                |              |              | 0.130        |             | 0.160       | 0.18        | 0.28        | 0.28        | 0.28        | 0.40        | 0.42        | 0.52        | 0.37          |
| 391   | 390                |              |              | 0.120        |             | 0.150       | 0.16        | 0.26        | 0.26        |             | 0.36        | 0.38        | 0.48        | 0.35          |
| 461   | 460                |              |              | 0.090        |             | 0.140       |             |             |             |             |             |             |             |               |
| 471   | 470                |              |              | 0.084        |             | 0.135       | 0.15        | 0.20        | 0.12        |             | 0.34        | 0.35        | 0.42        | 0.33          |
| 561   | 560                |              |              | 0.080        |             | 0.130       | 0.14        | 0.19        | 0.10        |             |             | 0.32        | 0.33        |               |
| 681   | 680                |              |              | 0.080        |             | 0.120       | 0.13        | 0.18        | 0.08        |             |             |             | 0.28        |               |
| 821   | 820                |              |              | 0.070        |             | 0.063       | 0.07        | 0.15        | 0.05        |             |             |             | 0.24        |               |
| 102   | 1000               |              |              | 0.060        |             | 0.045       | 0.05        | 0.13        | 0.03        |             |             |             |             |               |
| 122   | 1200               |              | 0.05         |              |             |             |             |             |             |             |             |             |             |               |
| 152   | 1500               |              | 0.03         |              |             |             |             |             |             |             |             |             |             |               |

- SCD0301 22uH~27uH ±20%

• SCD03015 2.2~1500uH ±20%

• SCD03021 1.0~1000uH±20%

• SCD0403 1.0~27uH±20% 33~100uH±10%

• SCD0501 1.0~27uH±20% 33~1000uH±10%

• SCD0502 1.0~27uH±20% 33~1000uH±10%

• SCD0503 1.0~27uH±20% 33~1000uH±10%
- SCD0504 10~27uH ±20% ; 33~47uH±15% ; 56~220uH ±10%

• SCD0703 10~47uH±20% 56~330uH±10%

• SCD0705 1.4~47uH±20% 56~470uH±10%

• SCD1004 10~47uH±20% 56~560uH±10%

• SCD1005 4.7~39uH±20% 47~820uH±10%

• SCDR105B 10~27uH±20% ; 33~82uH±15% ; 100~470uH ±10%

\*This indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition or D.C Current when at Δt=4°C whichever is lower.



## SCD STANDARD SPECIFICATIONS

### Electrical Characteristics

#### Standard Specifications

| Stamp | Inductance<br>( $\mu$ H) | D.C.R( $\Omega$ )Max. |               |              |             |             |             |             |             |             |             |             |             |               |
|-------|--------------------------|-----------------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
|       |                          | SCD<br>0301           | SCD<br>03015  | SCD<br>03021 | SCD<br>0403 | SCD<br>0501 | SCD<br>0502 | SCD<br>0503 | SCD<br>0504 | SCD<br>0703 | SCD<br>0705 | SCD<br>1004 | SCD<br>1005 | SCDR<br>1005B |
| 1R0   | 1.0                      |                       |               | 0.07         | 0.033       | 0.034       | 0.03        | 0.03        |             |             | 0.02        |             |             |               |
| 1R2   | 1.2                      |                       |               |              |             |             |             | 0.03        |             |             |             |             |             |               |
| 1R4   | 1.4                      |                       |               | 0.09         | 0.038       | 0.048       | 0.04        |             |             |             | 0.02        |             |             |               |
| 1R5   | 1.5                      |                       |               |              |             |             |             | 0.03        |             |             |             |             |             |               |
| 1R8   | 1.8                      |                       |               | 0.11         | 0.042       | 0.062       | 0.05        | 0.03        |             |             | 0.02        |             |             |               |
| 2R2   | 2.2                      | 0.33                  | 0.10 $\pm$ 30 | 0.13         | 0.047       | 0.064       | 0.06        | 0.03        |             |             |             |             |             |               |
| 2R7   | 2.7                      |                       |               | 0.14         | 0.052       | 0.078       | 0.07        | 0.04        |             |             | 0.02        |             |             |               |
| 3R3   | 3.3                      | 0.52                  |               | 0.17         | 0.058       | 0.097       | 0.08        | 0.05        |             |             |             |             |             |               |
| 3R9   | 3.9                      |                       |               | 0.19         | 0.076       | 0.105       | 0.09        | 0.06        |             |             | 0.03        |             |             |               |
| 4R7   | 4.7                      | 0.62                  | 0.15 $\pm$ 30 | 0.21         | 0.094       | 0.134       | 0.14        | 0.07        |             |             | 0.04        |             | 0.040       |               |
| 5R6   | 5.6                      |                       |               | 0.22         | 0.101       | 0.170       | 0.15        | 0.08        |             |             | 0.04        |             |             |               |
| 6R8   | 6.8                      | 0.87                  |               | 0.25         | 0.117       | 0.187       | 0.16        | 0.09        |             |             | 0.04        |             | 0.037       |               |
| 8R2   | 8.2                      | 1                     |               | 0.28         | 0.132       | 0.225       | 0.17        | 0.10        |             |             | 0.05        |             |             |               |
| 100   | 10                       | 1.14                  | 0.30 $\pm$ 30 | 0.32         | 0.182       | 0.255       | 0.18        | 0.12        | 0.10        | 0.08        | 0.07        | 0.05        | 0.060       | 0.06          |
| 120   | 12                       | 1.44                  |               | 0.35         | 0.210       | 0.292       | 0.20        | 0.13        | 0.12        | 0.09        | 0.08        | 0.06        | 0.070       | 0.07          |
| 150   | 15                       | 1.6                   | 0.58 $\pm$ 30 | 0.40         | 0.235       | 0.360       | 0.22        | 0.15        | 0.14        | 0.10        | 0.09        | 0.07        | 0.080       | 0.07          |
| 180   | 18                       |                       |               | 0.48         | 0.338       | 0.430       | 0.25        | 0.18        | 0.15        | 0.11        | 0.10        | 0.08        | 0.090       | 0.08          |
| 220   | 22                       | 1.9                   | 0.71 $\pm$ 30 | 0.58         | 0.378       | 0.492       | 0.35        | 0.22        | 0.18        | 0.13        | 0.11        | 0.09        | 0.100       | 0.08          |
| 270   | 27                       | 2.85                  |               | 0.65         | 0.522       | 0.603       | 0.45        | 0.26        | 0.20        | 0.15        | 0.12        | 0.10        | 0.110       | 0.10          |
| 330   | 33                       |                       | 1.10 $\pm$ 30 | 0.80         | 0.540       | 0.796       | 0.56        | 0.33        | 0.23        | 0.17        | 0.13        | 0.12        | 0.120       | 0.11          |
| 390   | 39                       |                       |               | 0.90         | 0.587       | 0.897       | 0.69        | 0.42        | 0.32        | 0.22        | 0.16        | 0.15        | 0.140       | 0.12          |
| 470   | 47                       |                       | 1.30 $\pm$ 30 | 1.19         | 0.844       | 1.020       | 0.72        | 0.50        | 0.37        | 0.25        | 0.18        | 0.17        | 0.170       | 0.14          |
| 500   | 50                       |                       |               | 1.22         |             | 1.040       |             |             |             |             |             |             |             |               |
| 560   | 56                       |                       |               | 1.27         | 0.937       | 1.164       | 0.84        | 0.55        | 0.42        | 0.28        | 0.24        | 0.20        | 0.190       | 0.19          |
| 680   | 68                       |                       | 2.20 $\pm$ 30 | 1.73         | 1.117       | 1.220       | 0.90        | 0.65        | 0.46        | 0.33        | 0.28        | 0.22        | 0.220       | 0.21          |
| 750   | 75                       |                       |               | 1.90         |             | 1.340       |             |             |             |             |             |             |             |               |
| 820   | 82                       |                       |               | 1.99         |             | 1.570       | 1.20        | 0.80        | 0.60        | 0.41        | 0.37        | 0.25        | 0.25        | 0.28          |
| 101   | 100                      |                       | 3.50 $\pm$ 30 | 2.52         | 2.000       | 1.800       | 1.30        | 0.90        | 0.70        | 0.48        | 0.43        | 0.34        | 0.35        | 0.34          |
| 121   | 120                      |                       |               | 2.90         |             | 2.000       | 1.38        | 1.00        | 0.93        | 0.54        | 0.47        | 0.40        | 0.40        | 0.37          |
| 151   | 150                      |                       |               | 3.36         |             | 2.80        | 1.81        | 1.30        | 1.10        | 0.75        | 0.64        | 0.54        | 0.47        | 0.51          |
| 181   | 180                      |                       |               | 5.10         |             | 3.15        | 1.95        | 1.50        | 1.38        | 1.02        | 0.71        | 0.62        | 0.63        | 0.57          |
| 221   | 220                      |                       |               | 5.80         |             | 4.40        | 3.00        | 2.00        | 1.57        | 1.20        | 0.96        | 0.72        | 0.73        | 0.78          |
| 271   | 270                      |                       |               | 7.80         |             | 6.40        | 3.20        | 2.50        | 1.85        | 1.31        | 1.11        | 0.95        | 0.97        | 0.87          |
| 301   | 300                      |                       |               | 8.10         |             | 6.75        |             |             |             |             |             |             |             |               |
| 331   | 330                      |                       |               | 9.24         |             | 7.20        | 3.82        | 3.20        | 2.00        | 1.50        | 1.26        | 1.10        | 1.15        | 1.20          |
| 391   | 390                      |                       |               | 10.14        |             | 8.40        | 4.68        | 3.50        | 2.60        |             | 1.77        | 1.24        | 1.30        | 1.34          |
| 461   | 460                      |                       |               | 11.15        |             | 12.0        |             |             |             |             |             |             |             |               |
| 471   | 470                      |                       |               | 11.48        |             | 12.4        | 5.10        | 4.20        | 3.00        |             | 1.96        | 1.53        | 1.48        | 1.50          |
| 561   | 560                      |                       |               | 19.49        |             | 13.0        | 8.50        | 4.50        | 4.19        |             |             | 1.90        | 1.90        |               |
| 681   | 680                      |                       |               | 22.00        |             | 17.0        | 10.0        | 6.50        | 4.44        |             |             |             | 2.25        |               |
| 821   | 820                      |                       |               | 23.98        |             | 19.5        | 12.0        | 7.50        | 5.12        |             |             |             | 2.55        |               |
| 102   | 1000                     |                       |               | 28.80        |             | 24.0        | 18.0        | 8.00        | 10.00       |             |             |             |             |               |
| 122   | 1200                     |                       | 38 $\pm$ 30   |              |             |             |             |             |             |             |             |             |             |               |
| 152   | 1500                     |                       | 55 $\pm$ 30   |              |             |             |             |             |             |             |             |             |             |               |

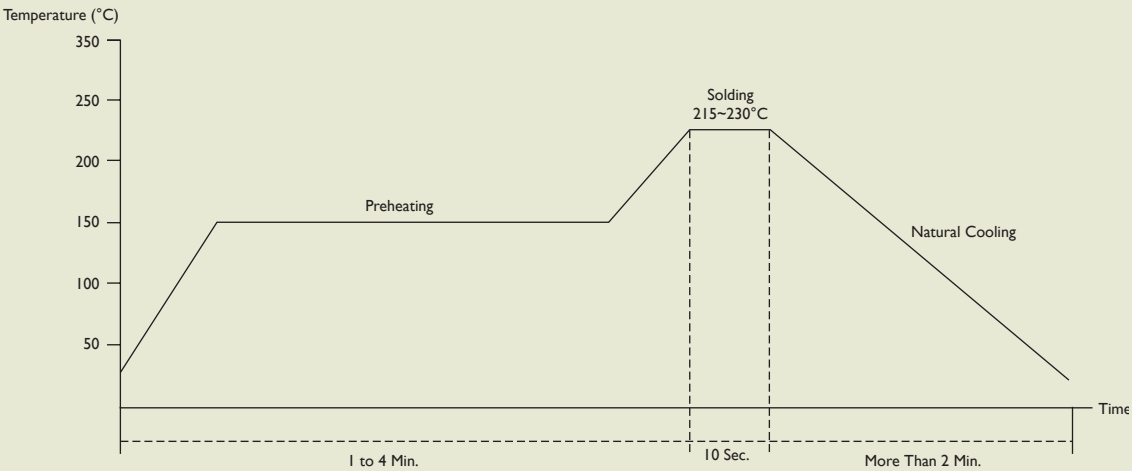
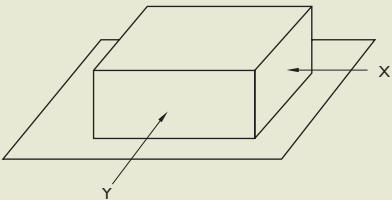
\*Test Freq.(L): SCD0301 : 0.1V / 100KHz  
 SCD03015 : (1MHz / 1V)  
 SCD03021 / 0403 / 0501 / 0502 / 0503 : 1.0~8.2H(7.96MHz / 1V), 10~82H(2.52MHz / 1V), 100~1000(1KHz / 1V).  
 SCD0504 / 0705 / 1004 : 1.0~8.2H(7.96MHz / 1V), 10~82H(2.52MHz / 1V), 100~1000H(1KHz / 1V).  
 SCD1005 : 1.0~8.2H(7.96MHz / 1V), 10~82H (2.52MHz / 1V), 100~1000H(1KHz / 1V).  
 SCDR105B : 1.0~8.2H(2.52MHz / 0.25V), 10~82H(1KHz / 0.25V)

\*Test Instrument : L: HP 4192A  
 DCR : CHEN HWA 502BC  
 Rated D.C Current : HP4294+42 841A or CHI061 +CH301A



GENERAL CHARACTERISTICS

|                                    |                                                                                                                                                                                         |         |         |         |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Operating Temperature              | -30 ~ +100°C (Contain Heading Coil)                                                                                                                                                     |         |         |         |
| Appearance Inspection              | No External Defects by Visual Inspection                                                                                                                                                |         |         |         |
| Terminal Strength                  | After soldering , between copper plate and terminals of coil , push in tow directions of X,Y with standing as blow conditions. Terminal should not peel off. (Refer to figure at right) |         |         |         |
|                                    | 10.0N                                                                                                                                                                                   | 10 Sec. | SCD0403 | SCD0504 |
|                                    | 15.0N                                                                                                                                                                                   | 10 Sec. | SCD0703 | SCD0705 |
|                                    | 20.0N                                                                                                                                                                                   | 10 Sec. | SCD1004 | SCD1005 |
| Heat Endurance of Reflow Soldering | Refer to Below Figure                                                                                                                                                                   |         |         |         |
| Insulating Resistance              | Over 100MΩ at 100V D.C. between wire and core.                                                                                                                                          |         |         |         |
| Dielectric Strength                | No dielectric breakdown at 100V D.C. for 1 minute between wire and core.                                                                                                                |         |         |         |
| Temperature Characteristics        | Inductance coefficient (0 ~ 2,000) X 10 <sup>-6</sup> /°C (-25 ~ +80°C )                                                                                                                |         |         |         |
| Humidity Characteristics           | Inductance deviation within ±5.0% , after 96 hours in 90 ~ 95% relative humidity at 40 ± 2°C and 1 hour drying under normal condition.                                                  |         |         |         |
| Vibration Resistance               | Inductance deviation within ±5.0% , after vibration for 1 hour.                                                                                                                         |         |         |         |
|                                    | In each of three orientations at sweep vibration (10 ~ 55 ~ 10Hz) with 1.5 mm p-p amplitude.                                                                                            |         |         |         |





## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0301T-2R2 □ -N | 2.2                  | 100KHz,0.1V | 0.33               | 1.08      |
| SCD0301T-3R3 □ -N | 3.3                  | 100KHz,0.1V | 0.52               | 0.92      |
| SCD0301T-4R7 □ -N | 4.7                  | 100KHz,0.1V | 0.62               | 0.74      |
| SCD0301T-6R8 □ -N | 6.8                  | 100KHz,0.1V | 0.87               | 0.63      |
| SCD0301T-8R2 □ -N | 8.2                  | 100KHz,0.1V | 1                  | 0.58      |
| SCD0301T-10 □ -N  | 10                   | 100KHz,0.1V | 1.14               | 0.5       |
| SCD0301T-12 □ -N  | 12                   | 100KHz,0.1V | 1.44               | 0.46      |
| SCD0301T-15 □ -N  | 15                   | 100KHz,0.1V | 1.6                | 0.43      |
| SCD0301T-22 □ -N  | 22                   | 100KHz,0.1V | 1.9                | 0.35      |
| SCD0301T-27 □ -N  | 27                   | 100KHz,0.1V | 2.85               | 0.32      |

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | IDC(A)Max |
|--------------------|----------------------|-----------|--------------------|-----------|
| SCD03015T-2R2 □ -N | 2.2                  | 1MHz,1V   | 0.10±30%           | 0.79      |
| SCD03015T-3R3 □ -N | 3.3                  | 1MHz,1V   | 0.11±30%           | 0.73      |
| SCD03015T-4R7 □ -N | 4.7                  | 1MHz,1V   | 0.15±30%           | 0.65      |
| SCD03015T-10 □ -N  | 10                   | 1MHz,1V   | 0.30±30%           | 0.45      |
| SCD03015T-15 □ -N  | 15                   | 1MHz,1V   | 0.58±30%           | 0.3       |
| SCD03015T-22 □ -N  | 22                   | 1MHz,1V   | 0.71±30%           | 0.25      |
| SCD03015T-33 □ -N  | 33                   | 1MHz,1V   | 1.10±30%           | 0.2       |
| SCD03015T-39 □ -N  | 39                   | 1MHz,1V   | 1.30±30%           | 0.17      |
| SCD03015T-47 □ -N  | 47                   | 1MHz,1V   | 1.30±30%           | 0.17      |
| SCD03015T-68 □ -N  | 68                   | 1MHz,1V   | 2.20±30%           | 0.13      |
| SCD03015T-101 □ -N | 100                  | 1MHz,1V   | 3.50±30%           | 0.1       |
| SCD03015T-122 □ -N | 1200                 | 1MHz,1V   | 38±30%             | 0.05      |
| SCD03015T-152 □ -N | 1500                 | 1MHz,1V   | 55±30%             | 0.03      |

NOTE : □ -tolerance K=±10% / ±15% / M=±20% / N=+40% -20%

1.Operating temperature range -40°C~85°C

2.this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|--------------------|----------------------|-------------|--------------------|-----------|
| SCD03021T-1R0 □ -N | 1                    | 7.96MHz, 1V | 0.07               | 2.08      |
| SCD03021T-1R4 □ -N | 1.4                  | 7.96MHz, 1V | 0.09               | 1.86      |
| SCD03021T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.11               | 1.8       |
| SCD03021T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.13               | 1.39      |
| SCD03021T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.14               | 1.32      |
| SCD03021T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.17               | 1.25      |
| SCD03021T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.19               | 1.2       |
| SCD03021T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.21               | 1.13      |
| SCD03021T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.22               | 0.91      |
| SCD03021T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.25               | 0.85      |
| SCD03021T-7R0 □ -N | 7                    | 7.96MHz, 1V | 0.28               | 0.82      |
| SCD03021T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.28               | 0.82      |
| SCD03021T-100 □ -N | 10                   | 2.52MHz, 1V | 0.32               | 0.74      |
| SCD03021T-120 □ -N | 12                   | 2.52MHz, 1V | 0.35               | 0.64      |
| SCD03021T-150 □ -N | 15                   | 2.52MHz, 1V | 0.4                | 0.6       |
| SCD03021T-180 □ -N | 18                   | 2.52MHz, 1V | 0.48               | 0.54      |
| SCD03021T-220 □ -N | 22                   | 2.52MHz, 1V | 0.58               | 0.5       |
| SCD03021T-270 □ -N | 27                   | 2.52MHz, 1V | 0.65               | 0.43      |
| SCD03021T-330 □ -N | 33                   | 2.52MHz, 1V | 0.8                | 0.4       |
| SCD03021T-390 □ -N | 39                   | 2.52MHz, 1V | 0.9                | 0.37      |
| SCD03021T-470 □ -N | 47                   | 2.52MHz, 1V | 1.19               | 0.36      |
| SCD03021T-500 □ -N | 50                   | 2.52MHz, 1V | 1.22               | 0.33      |
| SCD03021T-560 □ -N | 56                   | 2.52MHz, 1V | 1.27               | 0.31      |
| SCD03021T-680 □ -N | 68                   | 2.52MHz, 1V | 1.73               | 0.3       |
| SCD03021T-750 □ -N | 75                   | 2.52MHz, 1V | 1.9                | 0.29      |
| SCD03021T-820 □ -N | 82                   | 2.52MHz, 1V | 1.99               | 0.28      |
| SCD03021T-101 □ -N | 100                  | 1KHz, 1V    | 2.52               | 0.25      |
| SCD03021T-121 □ -N | 120                  | 1KHz, 1V    | 2.9                | 0.2       |
| SCD03021T-151 □ -N | 150                  | 1KHz, 1V    | 3.36               | 0.19      |
| SCD03021T-181 □ -N | 180                  | 1KHz, 1V    | 5.1                | 0.17      |
| SCD03021T-221 □ -N | 220                  | 1KHz, 1V    | 5.8                | 0.16      |
| SCD03021T-271 □ -N | 270                  | 1KHz, 1V    | 7.8                | 0.14      |
| SCD03021T-301 □ -N | 300                  | 1KHz, 1V    | 8.1                | 0.135     |
| SCD03021T-331 □ -N | 330                  | 1KHz, 1V    | 9.24               | 0.13      |
| SCD03021T-391 □ -N | 390                  | 1KHz, 1V    | 10.14              | 0.12      |
| SCD03021T-461 □ -N | 460                  | 1KHz, 1V    | 11.15              | 0.09      |
| SCD03021T-471 □ -N | 470                  | 1KHz, 1V    | 11.48              | 0.084     |
| SCD03021T-561 □ -N | 560                  | 1KHz, 1V    | 19.49              | 0.08      |
| SCD03021T-681 □ -N | 680                  | 1KHz, 1V    | 22                 | 0.08      |
| SCD03021T-821 □ -N | 820                  | 1KHz, 1V    | 23.98              | 0.07      |
| SCD03021T-102 □ -N | 1000                 | 1KHz, 1V    | 28.8               | 0.06      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0403T-1R0 □ -N | 1                    | 7.96MHz, 1V | 0.033              | 3.8       |
| SCD0403T-1R4 □ -N | 1.4                  | 7.96MHz, 1V | 0.038              | 3.3       |
| SCD0403T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.042              | 2.91      |
| SCD0403T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.047              | 2.6       |
| SCD0403T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.052              | 2.43      |
| SCD0403T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.058              | 2.15      |
| SCD0403T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.076              | 1.98      |
| SCD0403T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.094              | 1.7       |
| SCD0403T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.101              | 1.6       |
| SCD0403T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.117              | 1.41      |
| SCD0403T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.132              | 1.26      |
| SCD0403T-100 □ -N | 10                   | 2.52MHz, 1V | 0.182              | 1.15      |
| SCD0403T-120 □ -N | 12                   | 2.52MHz, 1V | 0.21               | 1.05      |
| SCD0403T-150 □ -N | 15                   | 2.52MHz, 1V | 0.235              | 0.92      |
| SCD0403T-180 □ -N | 18                   | 2.52MHz, 1V | 0.338              | 0.84      |
| SCD0403T-220 □ -N | 22                   | 2.52MHz, 1V | 0.378              | 0.76      |
| SCD0403T-270 □ -N | 27                   | 2.52MHz, 1V | 0.522              | 0.71      |
| SCD0403T-330 □ -N | 33                   | 2.52MHz, 1V | 0.54               | 0.64      |
| SCD0403T-390 □ -N | 39                   | 2.52MHz, 1V | 0.587              | 0.59      |
| SCD0403T-470 □ -N | 47                   | 2.52MHz, 1V | 0.844              | 0.54      |
| SCD0403T-560 □ -N | 56                   | 2.52MHz, 1V | 0.937              | 0.5       |
| SCD0403T-680 □ -N | 68                   | 2.52MHz, 1V | 1.117              | 0.46      |
| SCD0403T-880 □ -N | 88                   | 100KHz, 1V  | 1.2                | 0.3       |
| SCD0403T-101 □ -N | 100                  | 1KHz, 1V    | 2                  | 0.4       |
| SCD0403T-121 □ -N | 120                  | 1KHz, 1V    | 1.8                | 0.38      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0501T-1R0 □ -N | 1                    | 7.96MHz, 1V | 0.034              | 4         |
| SCD0501T-1R4 □ -N | 1.4                  | 7.96MHz, 1V | 0.048              | 3.6       |
| SCD0501T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.062              | 3         |
| SCD0501T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.064              | 2.65      |
| SCD0501T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.078              | 2.2       |
| SCD0501T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.097              | 2.11      |
| SCD0501T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.105              | 2         |
| SCD0501T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.134              | 1.8       |
| SCD0501T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.17               | 1.6       |
| SCD0501T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.187              | 1.5       |
| SCD0501T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.225              | 1.3       |
| SCD0501T-100 □ -N | 10                   | 2.52MHz, 1V | 0.255              | 1.1       |
| SCD0501T-120 □ -N | 12                   | 2.52MHz, 1V | 0.292              | 1.05      |
| SCD0501T-150 □ -N | 15                   | 2.52MHz, 1V | 0.36               | 1         |
| SCD0501T-180 □ -N | 18                   | 2.52MHz, 1V | 0.43               | 0.95      |
| SCD0501T-220 □ -N | 22                   | 2.52MHz, 1V | 0.492              | 0.9       |
| SCD0501T-270 □ -N | 27                   | 2.52MHz, 1V | 0.603              | 0.77      |
| SCD0501T-330 □ -N | 33                   | 2.52MHz, 1V | 0.796              | 0.68      |
| SCD0501T-390 □ -N | 39                   | 2.52MHz, 1V | 0.897              | 0.67      |
| SCD0501T-470 □ -N | 47                   | 2.52MHz, 1V | 1.02               | 0.66      |
| SCD0501T-500 □ -N | 50                   | 2.52MHz, 1V | 1.04               | 0.61      |
| SCD0501T-560 □ -N | 56                   | 2.52MHz, 1V | 1.164              | 0.5       |
| SCD0501T-680 □ -N | 68                   | 2.52MHz, 1V | 1.22               | 0.47      |
| SCD0501T-750 □ -N | 75                   | 2.52MHz, 1V | 1.34               | 0.46      |
| SCD0501T-820 □ -N | 82                   | 2.52MHz, 1V | 1.57               | 0.45      |
| SCD0501T-101 □ -N | 100                  | 1KHz, 1V    | 1.8                | 0.36      |
| SCD0501T-121 □ -N | 120                  | 1KHz, 1V    | 2                  | 0.32      |
| SCD0501T-151 □ -N | 150                  | 1KHz, 1V    | 2.8                | 0.27      |
| SCD0501T-181 □ -N | 180                  | 1KHz, 1V    | 3.15               | 0.23      |
| SCD0501T-221 □ -N | 220                  | 1KHz, 1V    | 4.4                | 0.22      |
| SCD0501T-271 □ -N | 270                  | 1KHz, 1V    | 6.4                | 0.19      |
| SCD0501T-301 □ -N | 300                  | 1KHz, 1V    | 6.75               | 0.18      |
| SCD0501T-331 □ -N | 330                  | 1KHz, 1V    | 7.2                | 0.16      |
| SCD0501T-391 □ -N | 390                  | 1KHz, 1V    | 8.4                | 0.15      |
| SCD0501T-461 □ -N | 460                  | 1KHz, 1V    | 12                 | 0.14      |
| SCD0501T-471 □ -N | 470                  | 1KHz, 1V    | 12.4               | 0.135     |
| SCD0501T-561 □ -N | 560                  | 1KHz, 1V    | 13                 | 0.13      |
| SCD0501T-681 □ -N | 680                  | 1KHz, 1V    | 17                 | 0.12      |
| SCD0501T-821 □ -N | 820                  | 1KHz, 1V    | 19.5               | 0.063     |
| SCD0501T-102 □ -N | 1000                 | 1KHz, 1V    | 24                 | 0.045     |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0502T-1R0 □ -N | 1                    | 7.96MHz, 1V | 0.03               | 4.5       |
| SCD0502T-1R4 □ -N | 1.4                  | 7.96MHz, 1V | 0.04               | 4         |
| SCD0502T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.05               | 3.3       |
| SCD0502T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.06               | 2.94      |
| SCD0502T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.07               | 2.5       |
| SCD0502T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.08               | 2.35      |
| SCD0502T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.09               | 2.2       |
| SCD0502T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.14               | 2         |
| SCD0502T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.15               | 1.8       |
| SCD0502T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.16               | 1.7       |
| SCD0502T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.17               | 1.4       |
| SCD0502T-100 □ -N | 10                   | 2.52MHz, 1V | 0.18               | 1.2       |
| SCD0502T-120 □ -N | 12                   | 2.52MHz, 1V | 0.2                | 1.18      |
| SCD0502T-150 □ -N | 15                   | 2.52MHz, 1V | 0.22               | 1.15      |
| SCD0502T-180 □ -N | 18                   | 2.52MHz, 1V | 0.25               | 1.1       |
| SCD0502T-220 □ -N | 22                   | 2.52MHz, 1V | 0.35               | 1         |
| SCD0502T-270 □ -N | 27                   | 2.52MHz, 1V | 0.45               | 0.86      |
| SCD0502T-330 □ -N | 33                   | 2.52MHz, 1V | 0.56               | 0.76      |
| SCD0502T-390 □ -N | 39                   | 2.52MHz, 1V | 0.69               | 0.75      |
| SCD0502T-470 □ -N | 47                   | 2.52MHz, 1V | 0.72               | 0.73      |
| SCD0502T-560 □ -N | 56                   | 2.52MHz, 1V | 0.84               | 0.55      |
| SCD0502T-680 □ -N | 68                   | 2.52MHz, 1V | 0.9                | 0.52      |
| SCD0502T-820 □ -N | 82                   | 2.52MHz, 1V | 1.2                | 0.5       |
| SCD0502T-101 □ -N | 100                  | 1KHz, 1V    | 1.3                | 0.4       |
| SCD0502T-121 □ -N | 120                  | 1KHz, 1V    | 1.38               | 0.36      |
| SCD0502T-151 □ -N | 150                  | 1KHz, 1V    | 1.81               | 0.3       |
| SCD0502T-181 □ -N | 180                  | 1KHz, 1V    | 1.95               | 0.26      |
| SCD0502T-221 □ -N | 220                  | 1KHz, 1V    | 3                  | 0.25      |
| SCD0502T-271 □ -N | 270                  | 1KHz, 1V    | 3.2                | 0.21      |
| SCD0502T-331 □ -N | 330                  | 1KHz, 1V    | 3.82               | 0.18      |
| SCD0502T-391 □ -N | 390                  | 1KHz, 1V    | 4.68               | 0.16      |
| SCD0502T-471 □ -N | 470                  | 1KHz, 1V    | 5.1                | 0.15      |
| SCD0502T-561 □ -N | 560                  | 1KHz, 1V    | 8.5                | 0.14      |
| SCD0502T-681 □ -N | 680                  | 1KHz, 1V    | 10                 | 0.13      |
| SCD0502T-821 □ -N | 820                  | 1KHz, 1V    | 12                 | 0.07      |
| SCD0502T-102 □ -N | 1000                 | 1KHz, 1V    | 18                 | 0.05      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0503T-1R0 □ -N | 1                    | 7.96MHz, 1V | 0.03               | 4.5       |
| SCD0503T-1R2 □ -N | 1.2                  | 7.96MHz, 1V | 0.03               | 4.2       |
| SCD0503T-1R5 □ -N | 1.5                  | 7.96MHz, 1V | 0.03               | 4.1       |
| SCD0503T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.03               | 3.7       |
| SCD0503T-2R0 □ -N | 2                    | 7.96MHz, 1V | 0.03               | 3.6       |
| SCD0503T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.03               | 3.5       |
| SCD0503T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.04               | 3.2       |
| SCD0503T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.05               | 2.8       |
| SCD0503T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.06               | 2.6       |
| SCD0503T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.07               | 2.5       |
| SCD0503T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.08               | 2.4       |
| SCD0503T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.09               | 2.2       |
| SCD0503T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.1                | 2         |
| SCD0503T-100 □ -N | 10                   | 2.52MHz, 1V | 0.12               | 1.8       |
| SCD0503T-120 □ -N | 12                   | 2.52MHz, 1V | 0.13               | 1.75      |
| SCD0503T-150 □ -N | 15                   | 2.52MHz, 1V | 0.15               | 1.7       |
| SCD0503T-180 □ -N | 18                   | 2.52MHz, 1V | 0.18               | 1.6       |
| SCD0503T-220 □ -N | 22                   | 2.52MHz, 1V | 0.22               | 1.5       |
| SCD0503T-270 □ -N | 27                   | 2.52MHz, 1V | 0.26               | 1.4       |
| SCD0503T-330 □ -N | 33                   | 2.52MHz, 1V | 0.33               | 1.1       |
| SCD0503T-390 □ -N | 39                   | 2.52MHz, 1V | 0.42               | 1         |
| SCD0503T-470 □ -N | 47                   | 2.52MHz, 1V | 0.5                | 0.9       |
| SCD0503T-560 □ -N | 56                   | 2.52MHz, 1V | 0.55               | 0.85      |
| SCD0503T-680 □ -N | 68                   | 2.52MHz, 1V | 0.65               | 0.8       |
| SCD0503T-820 □ -N | 82                   | 2.52MHz, 1V | 0.8                | 0.65      |
| SCD0503T-101 □ -N | 100                  | 1KHz, 1V    | 0.9                | 0.6       |
| SCD0503T-121 □ -N | 120                  | 1KHz, 1V    | 1                  | 0.58      |
| SCD0503T-151 □ -N | 150                  | 1KHz, 1V    | 1.3                | 0.43      |
| SCD0503T-181 □ -N | 180                  | 1KHz, 1V    | 1.5                | 0.41      |
| SCD0503T-221 □ -N | 220                  | 1KHz, 1V    | 2                  | 0.38      |
| SCD0503T-271 □ -N | 270                  | 1KHz, 1V    | 2.5                | 0.35      |
| SCD0503T-331 □ -N | 330                  | 1KHz, 1V    | 3.2                | 0.28      |
| SCD0503T-391 □ -N | 390                  | 1KHz, 1V    | 3.5                | 0.26      |
| SCD0503T-471 □ -N | 470                  | 1KHz, 1V    | 4.2                | 0.2       |
| SCD0503T-561 □ -N | 560                  | 1KHz, 1V    | 4.5                | 0.19      |
| SCD0503T-681 □ -N | 680                  | 1KHz, 1V    | 6.5                | 0.18      |
| SCD0503T-821 □ -N | 820                  | 1KHz, 1V    | 7.5                | 0.15      |
| SCD0503T-102 □ -N | 1000                 | 1KHz, 1V    | 8                  | 0.13      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                     | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|------------------------------------------|----------------------|-------------|--------------------|-----------|
| SCD0504T-3R3 <input type="checkbox"/> -N | 3.3                  | 7.96MHz, 1V | 0.0314             | 2.59      |
| SCD0504T-100 <input type="checkbox"/> -N | 10                   | 2.52MHz, 1V | 0.1                | 1.44      |
| SCD0504T-120 <input type="checkbox"/> -N | 12                   | 2.52MHz, 1V | 0.12               | 1.4       |
| SCD0504T-150 <input type="checkbox"/> -N | 15                   | 2.52MHz, 1V | 0.14               | 1.3       |
| SCD0504T-180 <input type="checkbox"/> -N | 18                   | 2.52MHz, 1V | 0.15               | 1.23      |
| SCD0504T-220 <input type="checkbox"/> -N | 22                   | 2.52MHz, 1V | 0.18               | 1.11      |
| SCD0504T-270 <input type="checkbox"/> -N | 27                   | 2.52MHz, 1V | 0.2                | 0.97      |
| SCD0504T-330 <input type="checkbox"/> -N | 33                   | 2.52MHz, 1V | 0.23               | 0.88      |
| SCD0504T-390 <input type="checkbox"/> -N | 39                   | 2.52MHz, 1V | 0.32               | 0.8       |
| SCD0504T-470 <input type="checkbox"/> -N | 47                   | 2.52MHz, 1V | 0.37               | 0.72      |
| SCD0504T-560 <input type="checkbox"/> -N | 56                   | 2.52MHz, 1V | 0.42               | 0.68      |
| SCD0504T-680 <input type="checkbox"/> -N | 68                   | 2.52MHz, 1V | 0.46               | 0.61      |
| SCD0504T-820 <input type="checkbox"/> -N | 82                   | 2.52MHz, 1V | 0.6                | 0.58      |
| SCD0504T-101 <input type="checkbox"/> -N | 100                  | 1KHz, 1V    | 0.7                | 0.52      |
| SCD0504T-121 <input type="checkbox"/> -N | 120                  | 1KHz, 1V    | 0.93               | 0.48      |
| SCD0504T-151 <input type="checkbox"/> -N | 150                  | 1KHz, 1V    | 1.1                | 0.4       |
| SCD0504T-181 <input type="checkbox"/> -N | 180                  | 1KHz, 1V    | 1.38               | 0.38      |
| SCD0504T-221 <input type="checkbox"/> -N | 220                  | 1KHz, 1V    | 1.57               | 0.35      |
| SCD0504T-102 <input type="checkbox"/> -N | 1000                 | 1KHz, 1V    | 10                 | 0.03      |

NOTE : ☐ -tolerance K= $\pm 10\%$  /  $\pm 15\%$  / M= $\pm 20\%$  / N= $+40\%$  -20%

1. Operating temperature range -40°C~85°C

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"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                     | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|------------------------------------------|----------------------|-------------|--------------------|-----------|
| SCD0703T-100 <input type="checkbox"/> -N | 10                   | 2.52MHz, 1V | 0.08               | 1.44      |
| SCD0703T-120 <input type="checkbox"/> -N | 12                   | 2.52MHz, 1V | 0.09               | 1.39      |
| SCD0703T-150 <input type="checkbox"/> -N | 15                   | 2.52MHz, 1V | 0.1                | 1.24      |
| SCD0703T-180 <input type="checkbox"/> -N | 18                   | 2.52MHz, 1V | 0.11               | 1.12      |
| SCD0703T-220 <input type="checkbox"/> -N | 22                   | 2.52MHz, 1V | 0.13               | 1.07      |
| SCD0703T-270 <input type="checkbox"/> -N | 27                   | 2.52MHz, 1V | 0.15               | 0.94      |
| SCD0703T-330 <input type="checkbox"/> -N | 33                   | 2.52MHz, 1V | 0.17               | 0.85      |
| SCD0703T-390 <input type="checkbox"/> -N | 39                   | 2.52MHz, 1V | 0.22               | 0.74      |
| SCD0703T-470 <input type="checkbox"/> -N | 47                   | 2.52MHz, 1V | 0.25               | 0.68      |
| SCD0703T-560 <input type="checkbox"/> -N | 56                   | 2.52MHz, 1V | 0.28               | 0.64      |
| SCD0703T-680 <input type="checkbox"/> -N | 68                   | 2.52MHz, 1V | 0.33               | 0.59      |
| SCD0703T-820 <input type="checkbox"/> -N | 82                   | 2.52MHz, 1V | 0.41               | 0.54      |
| SCD0703T-101 <input type="checkbox"/> -N | 100                  | 1KHz, 1V    | 0.48               | 0.51      |
| SCD0703T-121 <input type="checkbox"/> -N | 120                  | 1KHz, 1V    | 0.54               | 0.49      |
| SCD0703T-151 <input type="checkbox"/> -N | 150                  | 1KHz, 1V    | 0.75               | 0.4       |
| SCD0703T-181 <input type="checkbox"/> -N | 180                  | 1KHz, 1V    | 1.02               | 0.36      |
| SCD0703T-221 <input type="checkbox"/> -N | 220                  | 1KHz, 1V    | 1.2                | 0.31      |
| SCD0703T-271 <input type="checkbox"/> -N | 270                  | 1KHz, 1V    | 1.31               | 0.29      |
| SCD0703T-331 <input type="checkbox"/> -N | 330                  | 1KHz, 1V    | 1.5                | 0.28      |

NOTE : ☐ -tolerance K= $\pm 10\%$  /  $\pm 15\%$  / M= $\pm 20\%$  / N= $+40\%$  -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD0705T-1R0 □ -N | 1                    | 2.52MHz, 1V | 0.02               | 3.7       |
| SCD0705T-1R4 □ -N | 1.4                  | 7.96MHz, 1V | 0.02               | 3.7       |
| SCD0705T-1R8 □ -N | 1.8                  | 7.96MHz, 1V | 0.02               | 3.7       |
| SCD0705T-2R2 □ -N | 2.2                  | 7.96MHz, 1V | 0.02               | 3.7       |
| SCD0705T-2R7 □ -N | 2.7                  | 7.96MHz, 1V | 0.02               | 3.7       |
| SCD0705T-3R3 □ -N | 3.3                  | 7.96MHz, 1V | 0.03               | 3.7       |
| SCD0705T-3R9 □ -N | 3.9                  | 7.96MHz, 1V | 0.03               | 3.7       |
| SCD0705T-4R7 □ -N | 4.7                  | 7.96MHz, 1V | 0.04               | 3.5       |
| SCD0705T-5R6 □ -N | 5.6                  | 7.96MHz, 1V | 0.04               | 3.3       |
| SCD0705T-6R8 □ -N | 6.8                  | 7.96MHz, 1V | 0.04               | 3.1       |
| SCD0705T-8R2 □ -N | 8.2                  | 7.96MHz, 1V | 0.05               | 2.7       |
| SCD0705T-100 □ -N | 10                   | 2.52MHz, 1V | 0.07               | 2.3       |
| SCD0705T-120 □ -N | 12                   | 2.52MHz, 1V | 0.08               | 2         |
| SCD0705T-150 □ -N | 15                   | 2.52MHz, 1V | 0.09               | 1.8       |
| SCD0705T-180 □ -N | 18                   | 2.52MHz, 1V | 0.1                | 1.6       |
| SCD0705T-220 □ -N | 22                   | 2.52MHz, 1V | 0.11               | 1.5       |
| SCD0705T-270 □ -N | 27                   | 2.52MHz, 1V | 0.12               | 1.3       |
| SCD0705T-330 □ -N | 33                   | 2.52MHz, 1V | 0.13               | 1.2       |
| SCD0705T-390 □ -N | 39                   | 2.52MHz, 1V | 0.16               | 1.1       |
| SCD0705T-470 □ -N | 47                   | 2.52MHz, 1V | 0.18               | 1.1       |
| SCD0705T-560 □ -N | 56                   | 2.52MHz, 1V | 0.24               | 0.94      |
| SCD0705T-680 □ -N | 68                   | 2.52MHz, 1V | 0.28               | 0.85      |
| SCD0705T-820 □ -N | 82                   | 2.52MHz, 1V | 0.37               | 0.78      |
| SCD0705T-101 □ -N | 100                  | 1KHz, 1V    | 0.43               | 0.72      |
| SCD0705T-121 □ -N | 120                  | 1KHz, 1V    | 0.47               | 0.66      |
| SCD0705T-151 □ -N | 150                  | 1KHz, 1V    | 0.64               | 0.58      |
| SCD0705T-181 □ -N | 180                  | 1KHz, 1V    | 0.71               | 0.51      |
| SCD0705T-221 □ -N | 220                  | 1KHz, 1V    | 0.96               | 0.49      |
| SCD0705T-271 □ -N | 270                  | 1KHz, 1V    | 1.11               | 0.42      |
| SCD0705T-331 □ -N | 330                  | 1KHz, 1V    | 1.26               | 0.4       |
| SCD0705T-391 □ -N | 390                  | 1KHz, 1V    | 1.77               | 0.36      |
| SCD0705T-471 □ -N | 470                  | 1KHz, 1V    | 1.96               | 0.34      |

NOTE : □ -tolerance K=±10% / ±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^\circ\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|-------------|--------------------|-----------|
| SCD1004T-100 □ -N | 10                   | 2.52MHz, 1V | 0.05               | 2.38      |
| SCD1004T-120 □ -N | 12                   | 2.52MHz, 1V | 0.06               | 2.13      |
| SCD1004T-150 □ -N | 15                   | 2.52MHz, 1V | 0.07               | 1.87      |
| SCD1004T-180 □ -N | 18                   | 2.52MHz, 1V | 0.08               | 1.73      |
| SCD1004T-220 □ -N | 22                   | 2.52MHz, 1V | 0.09               | 1.6       |
| SCD1004T-270 □ -N | 27                   | 2.52MHz, 1V | 0.1                | 1.44      |
| SCD1004T-330 □ -N | 33                   | 2.52MHz, 1V | 0.12               | 1.26      |
| SCD1004T-390 □ -N | 39                   | 2.52MHz, 1V | 0.15               | 1.2       |
| SCD1004T-470 □ -N | 47                   | 2.52MHz, 1V | 0.17               | 1.1       |
| SCD1004T-560 □ -N | 56                   | 2.52MHz, 1V | 0.2                | 1.01      |
| SCD1004T-680 □ -N | 68                   | 2.52MHz, 1V | 0.22               | 0.91      |
| SCD1004T-820 □ -N | 82                   | 2.52MHz, 1V | 0.25               | 0.85      |
| SCD1004T-101 □ -N | 100                  | 1KHz, 1V    | 0.34               | 0.74      |
| SCD1004T-121 □ -N | 120                  | 1KHz, 1V    | 0.4                | 0.69      |
| SCD1004T-151 □ -N | 150                  | 1KHz, 1V    | 0.54               | 0.61      |
| SCD1004T-181 □ -N | 180                  | 1KHz, 1V    | 0.62               | 0.56      |
| SCD1004T-221 □ -N | 220                  | 1KHz, 1V    | 0.72               | 0.53      |
| SCD1004T-271 □ -N | 270                  | 1KHz, 1V    | 0.95               | 0.45      |
| SCD1004T-331 □ -N | 330                  | 1KHz, 1V    | 1.1                | 0.42      |
| SCD1004T-391 □ -N | 390                  | 1KHz, 1V    | 1.24               | 0.38      |
| SCD1004T-471 □ -N | 470                  | 1KHz, 1V    | 1.53               | 0.35      |
| SCD1004T-561 □ -N | 560                  | 1KHz, 1V    | 1.9                | 0.32      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at  $\Delta t=40^{\circ}\text{C}$  Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance(μH) | Test Freq  | RDC(Ω)Max | IDC(A)Max |
|-------------------|----------------|------------|-----------|-----------|
| SCD1005T-4R7 □ -N | 4.7            | 7.96MHz,1V | 0.037     | 2.6       |
| SCD1005T-6R8 □ -N | 6.8            | 7.96MHz,1V | 0.037     | 4.33      |
| SCD1005T-100 □ -N | 10             | 2.52MHz,1V | 0.06      | 2.6       |
| SCD1005T-120 □ -N | 12             | 2.52MHz,1V | 0.07      | 2.45      |
| SCD1005T-150 □ -N | 15             | 2.52MHz,1V | 0.08      | 2.27      |
| SCD1005T-180 □ -N | 18             | 2.52MHz,1V | 0.09      | 2.15      |
| SCD1005T-220 □ -N | 22             | 2.52MHz,1V | 0.1       | 1.95      |
| SCD1005T-270 □ -N | 27             | 2.52MHz,1V | 0.11      | 1.76      |
| SCD1005T-330 □ -N | 33             | 2.52MHz,1V | 0.12      | 1.5       |
| SCD1005T-390 □ -N | 39             | 2.52MHz,1V | 0.14      | 1.37      |
| SCD1005T-470 □ -N | 47             | 2.52MHz,1V | 0.17      | 1.28      |
| SCD1005T-560 □ -N | 56             | 2.52MHz,1V | 0.19      | 1.17      |
| SCD1005T-680 □ -N | 68             | 2.52MHz,1V | 0.22      | 1.11      |
| SCD1005T-820 □ -N | 82             | 2.52MHz,1V | 0.25      | 1         |
| SCD1005T-101 □ -N | 100            | 1KHz,1V    | 0.35      | 0.97      |
| SCD1005T-121 □ -N | 120            | 1KHz,1V    | 0.4       | 0.89      |
| SCD1005T-151 □ -N | 150            | 1KHz,1V    | 0.47      | 0.78      |
| SCD1005T-181 □ -N | 180            | 1KHz,1V    | 0.63      | 0.72      |
| SCD1005T-221 □ -N | 220            | 1KHz,1V    | 0.73      | 0.66      |
| SCD1005T-271 □ -N | 270            | 1KHz,1V    | 0.97      | 0.57      |
| SCD1005T-331 □ -N | 330            | 1KHz,1V    | 1.15      | 0.52      |
| SCD1005T-391 □ -N | 390            | 1KHz,1V    | 1.3       | 0.48      |
| SCD1005T-471 □ -N | 470            | 1KHz,1V    | 1.48      | 0.42      |
| SCD1005T-561 □ -N | 560            | 1KHz,1V    | 1.9       | 0.33      |
| SCD1005T-681 □ -N | 680            | 1KHz,1V    | 2.25      | 0.28      |
| SCD1005T-821 □ -N | 820            | 1KHz,1V    | 2.55      | 0.24      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

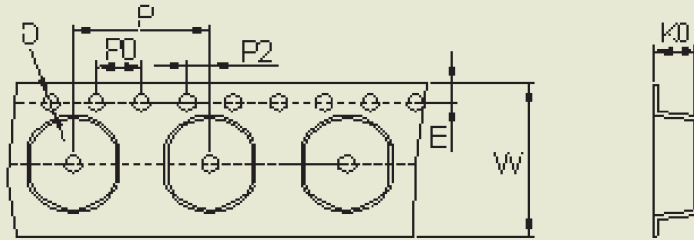
2.this indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at Δt=40°C Whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

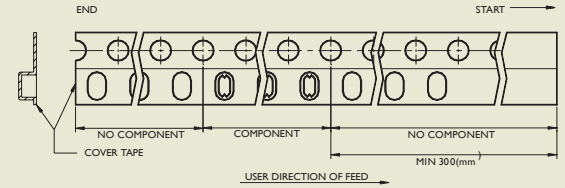


## SMD UNSHIELDED POWER INDUCTORS - SCD SERIES

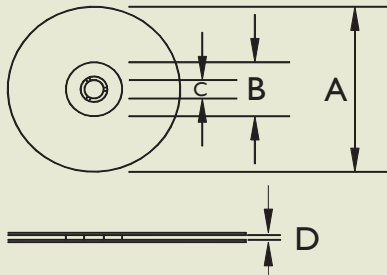
### Packaging Specifications



### Tape Material



### Reel Dimensions



Dimensions : mm

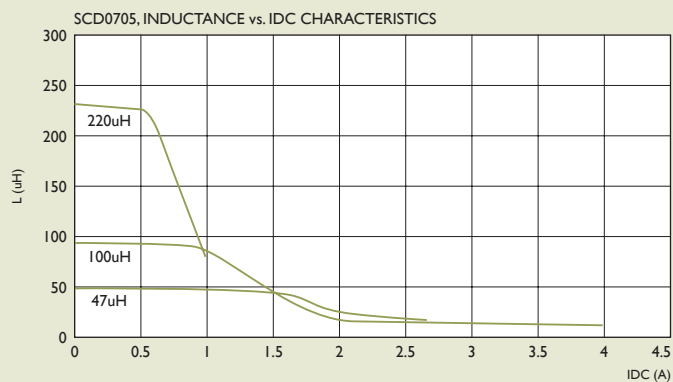
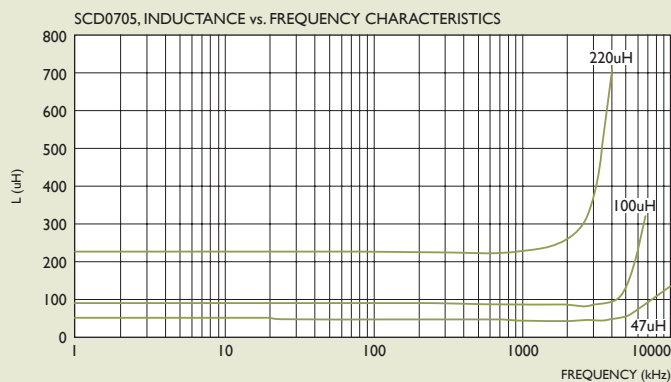
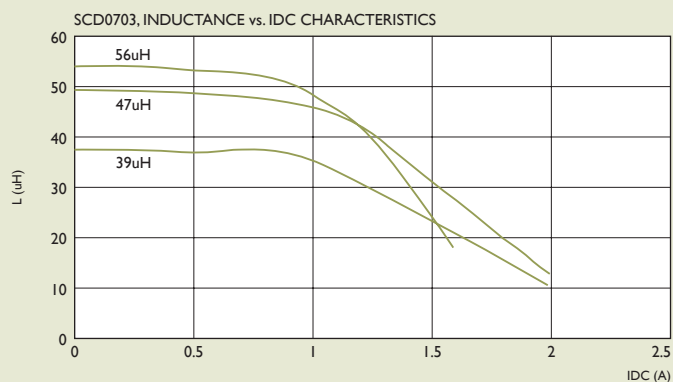
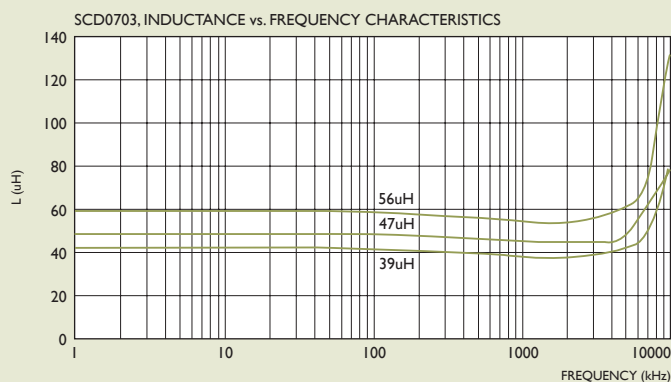
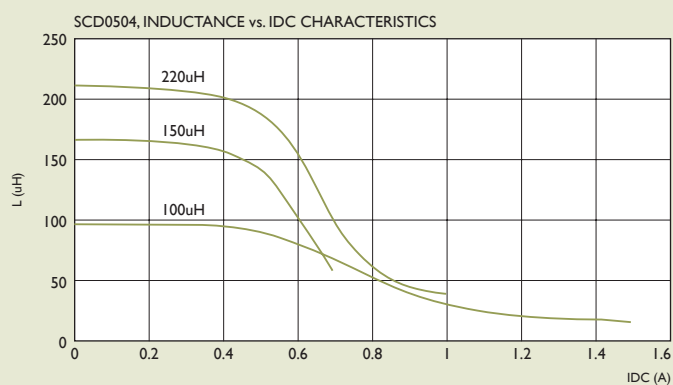
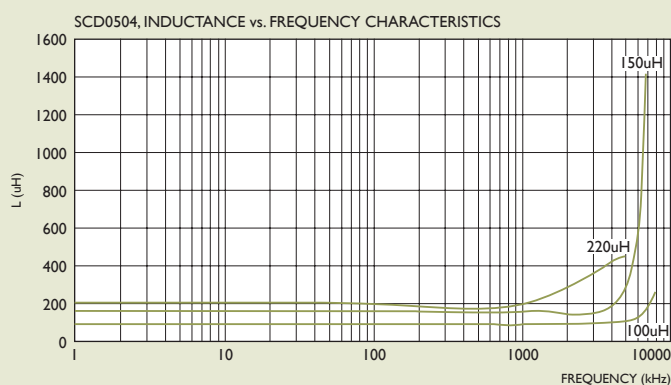
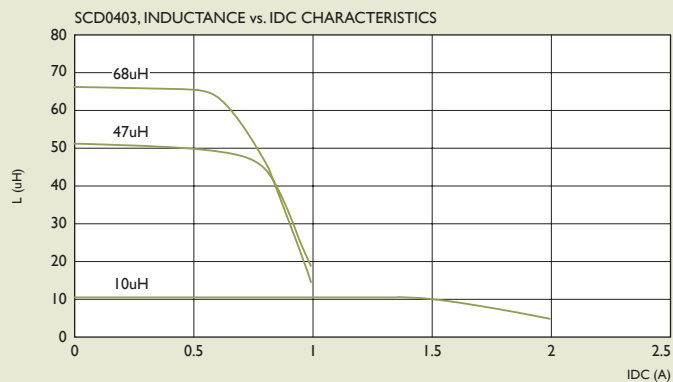
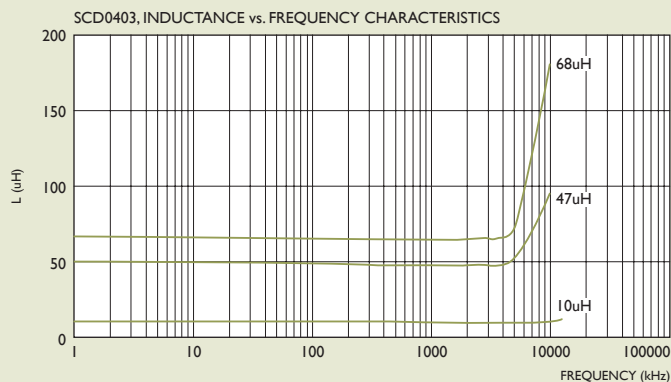
| TYPE     | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |     | REEL DIMENSIONS |     |    |      | QUANTITY PCS/REEL |
|----------|-----------------|------|------|----|----|----|----|---------------------|-----|-----------------|-----|----|------|-------------------|
|          | K0              | D    | E    | W  | P  | P0 | P2 | A                   | B   | A               | B   | C  | D    |                   |
| SCD0301  | 1.2             | 1.50 | 1.75 | 12 | 8  | 4  | 2  |                     |     | 330             | 100 | 13 | 13.4 | 5000              |
| SCD03015 | 1.80            | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 4.5                 | 1.0 | 330             | 100 | 13 | 13.4 | 3000              |
| SCD03021 | 2.50            | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 4.5                 | 1.0 | 330             | 100 | 13 | 13.4 | 3000              |
| SCD0403  | 3.1             | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 5.5                 | 1.2 | 330             | 100 | 13 | 13.4 | 2000              |
| SCD0501  | 2.35            | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.8                 | 2.0 | 330             | 100 | 13 | 13.4 | 2000              |
| SCD0502  | 3.00            | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.8                 | 2.0 | 330             | 100 | 13 | 13.4 | 2000              |
| SCD0503  | 3.30            | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.8                 | 2.0 | 330             | 100 | 13 | 13.4 | 2000              |
| SCD0504  | 4.8             | 1.55 | 1.75 | 16 | 8  | 4  | 2  | 6.8                 | 1.3 | 330             | 100 | 13 | 17.4 | 1500              |
| SCD0703  | 3.8             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.8                 | 2.1 | 330             | 100 | 13 | 17.4 | 1000              |
| SCD0705  | 5.2             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.8                 | 2.1 | 330             | 100 | 13 | 17.4 | 700               |
| SCD1004  | 5.8             | 1.55 | 1.75 | 24 | 12 | 4  | 2  | 11                  | 2.1 | 330             | 100 | 13 | 24.4 | 700               |
| SCD1005  | 5.8             | 1.55 | 1.75 | 24 | 12 | 4  | 2  | 11                  | 2.1 | 330             | 100 | 13 | 24.4 | 700               |
| SCDR105B | 5.8             | 1.55 | 1.75 | 24 | 12 | 4  | 2  | 10                  | 2.5 | 330             | 100 | 13 | 24.4 | 750               |



## TYPICAL ELECTRICAL CHARACTERISTICS

Curves of SCD Series

Test Instruments : HP4291A Impedance / Material Analyzer

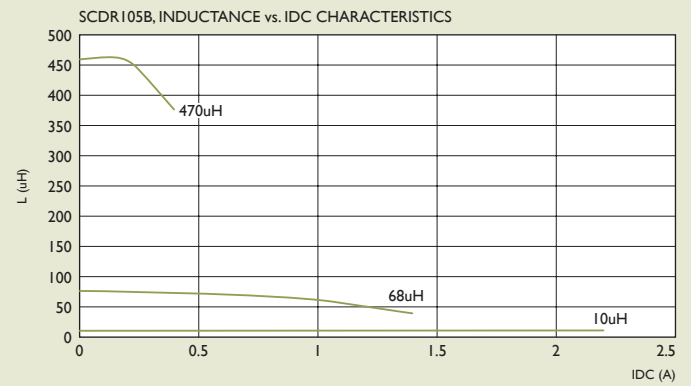
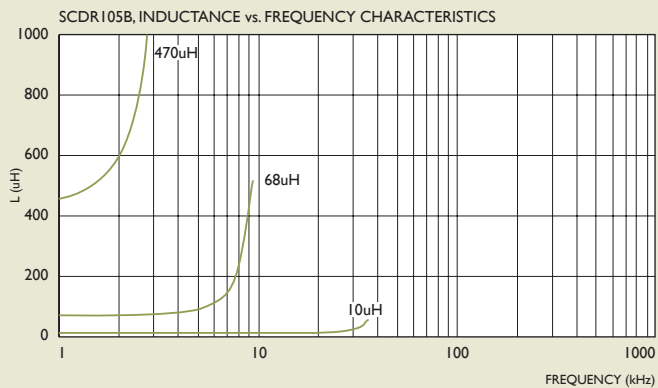
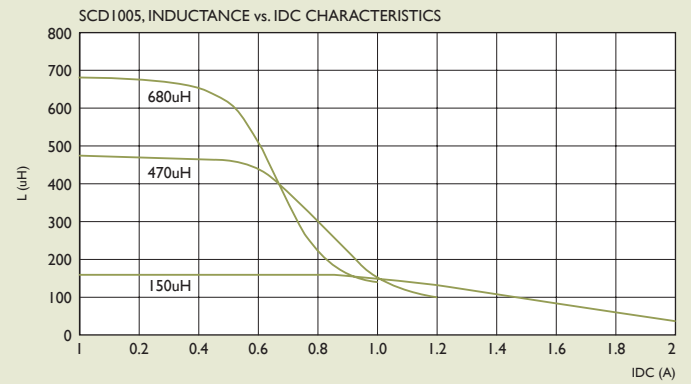
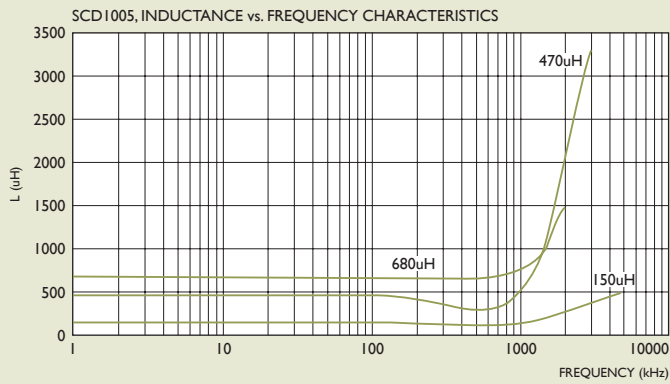
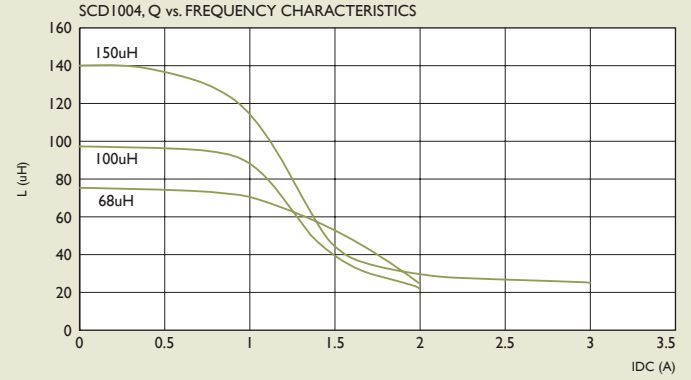
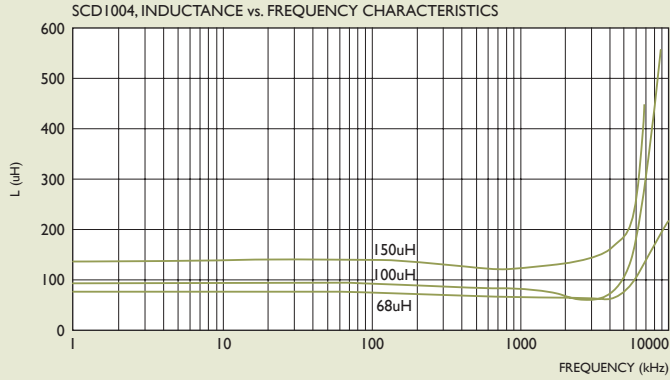




## TYPICAL ELECTRICAL CHARACTERISTICS

Curves of SCD Series

Test Instruments : HP4291A Impedance / Material Analyzer





## SCD SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

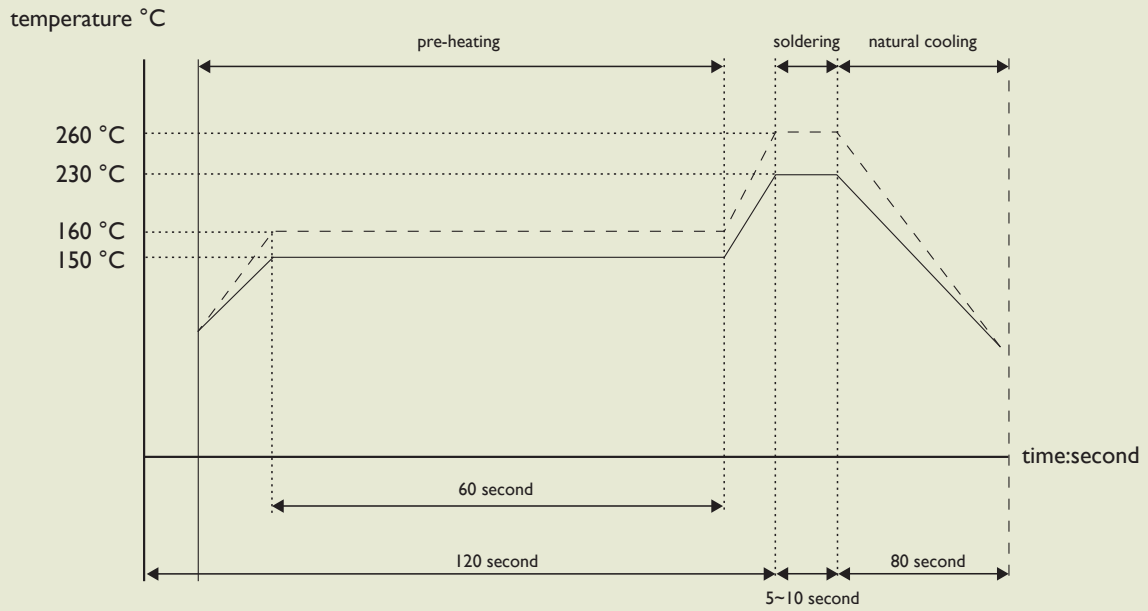
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                        | SPECIFICATION                                                                                            | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
|-------|-----------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-------------|---|---------|----|---|--------|---|---|--------|----|---|--------|---|
| I-2-1 | Temperature Shock           | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air)   Cycles shall Consist of :<br>30Min.Exposure to -55°C<br>30Min.Exposure to -125°C<br>15Sec. Max.Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                            |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-2 | Temperature Cycle           |                                                                                                          | One Cycle <table><tr><th>Step</th><th>Temperature (°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-25 ± 3</td><td>30</td></tr><tr><td>2</td><td>25 ± 2</td><td>3</td></tr><tr><td>3</td><td>85 ± 3</td><td>30</td></tr><tr><td>4</td><td>25 ± 2</td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature (°C) | Time (Min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 3 | 3 | 85 ± 3 | 30 | 4 | 25 ± 2 | 3 |
| Step  | Temperature (°C)            | Time (Min.)                                                                                              |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 1     | -25 ± 3                     | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 2     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 3     | 85 ± 3                      | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 4     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-3 | Humidity Resistance         |                                                                                                          | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-4 | High Temperature Resistance |                                                                                                          | Temperature : 85 ± 3°C<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                            |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-5 | Low Temperature Resistance  |                                                                                                          | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                               |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |



## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder —————

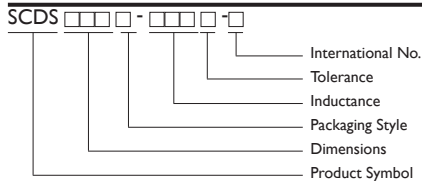
for: lead-free solder - - - - -

## SMT Power Inductors

## SCDS Series



## PRODUCT IDENTIFICATION



- T : Packing : Tape and Reel
- HP : Low DCR
- LD : High Power
- Tolerance : K=±10% ; M=±20% ; T=±30%
- Internal No.: B: Silver plated terminals (3D12~6D38); S: Base type terminals (2D11~2D18HP & 62T&127)
- Note : YAGEO will start to release lead-free terminals that meet SONY SS-00259's criterion and YAGEO Internal No will changed to "N" as identification.  
EX : SCDS 127T-100M-N

## FEATURES

Available in magnetically shielded.

Low DC resistance.

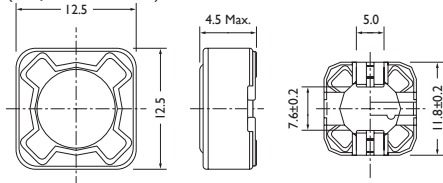
Suitable for large currents.

Ideal for a variety of DC - DC converter inductor applications.

Available on tape and reel for auto surface mounting.

## SCDS124

(3.9μH ~ 330mH)



## APPLICATIONS

Power supply for VTRs.

OA equipment.

LCD televisions.

Notebook PCs.

Portable communication equipment.

DC / DC converters, etc.

## CONFIGURATION AND DIMENSIONS

Dimensions : mm

| TYPE                        | SHAPES AND DIMENSION |  |  |
|-----------------------------|----------------------|--|--|
| SCDS62T<br>(3.3μH ~ 330μH)  |                      |  |  |
| SCDS64T<br>(10μH ~ 1000μH)  |                      |  |  |
| SCDS73<br>(10μH ~ 1.0mH)    |                      |  |  |
| SCDS74<br>(10μH ~ 1.0mH)    |                      |  |  |
| SCDS104R<br>(1.5μH ~ 330μH) |                      |  |  |
| SCDS125<br>(10μH ~ 1.0mH)   |                      |  |  |
| SCDS127<br>(10μH ~ 47mH)    |                      |  |  |



## STANDARD SPECIFICATIONS

PART INDUCTANCE D.C.R.(M)MAX.

RATED CURRENT(A)MAX.

| (H)      | SCDS<br>62T | SCDS<br>64T | SCDS<br>73 | SCDS<br>74 | SCDS<br>104R | SCDS<br>124 | SCDS<br>125 | SCDS<br>127 | SCDS<br>62 | SCDS<br>64 | SCDS<br>73 | SCDS<br>74 | SCDS<br>104R | SCDS<br>124 | SCDS<br>125 | SCDS<br>127 |
|----------|-------------|-------------|------------|------------|--------------|-------------|-------------|-------------|------------|------------|------------|------------|--------------|-------------|-------------|-------------|
| 1R0 1.0  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 1R2 1.2  |             |             |            |            |              |             |             | 7.0         |            |            |            |            |              |             |             | 9.80        |
| 1R5 1.5  |             |             |            |            | 8.1          |             |             |             |            |            |            |            | 10.0         |             |             |             |
| 1R8 1.8  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 2R2 2.2  |             |             |            |            |              |             |             |             | 1.94       |            |            |            |              |             |             |             |
| 2R4 2.4  |             |             |            |            |              |             |             | 11.5        |            |            |            |            |              |             |             | 8.00        |
| 2R5 2.5  |             |             |            |            | 10.5         |             |             |             |            |            |            |            | 7.5          |             |             |             |
| 2R7 2.7  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 3R0 3.0  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 3R3 3.3  | 68          |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 3R5 3.5  |             |             |            |            |              |             |             | 13.5        |            |            |            |            |              |             |             | 7.50        |
| 3R8 3.8  |             |             |            |            | 13           |             |             |             |            |            |            |            | 6.0          |             |             |             |
| 3R9 3.9  |             |             |            |            |              | 15          |             |             |            |            |            |            |              | 6.50        |             |             |
| 4R1 4.1  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 4R2 4.2  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 4R7 4.7  | 80          |             |            |            |              | 18          |             | 15.8        | 1.63       |            |            |            |              | 5.70        |             | 6.80        |
| 5R0 5.0  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 5R2 5.2  |             |             |            |            | 22           |             |             |             |            |            |            |            | 5.5          |             |             |             |
| 5R3 5.3  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 5R4 5.4  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 5R5 5.5  | 96          |             |            |            |              |             |             |             | 1.40       |            |            |            |              |             |             |             |
| 5R6 5.6  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 6R0 6.0  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 6R1 6.1  |             |             |            |            |              |             |             | 17.6        |            |            |            |            |              |             |             | 6.60        |
| 6R2 6.2  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 6R8 6.8  | 100         |             |            |            |              | 23          |             |             | 1.33       |            |            |            |              | 4.90        |             |             |
| 7R0 7.0  |             |             |            |            | 27           |             |             |             |            |            |            |            | 4.8          |             |             |             |
| 7R3 7.3  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 7R4 7.4  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 7R6 7.6  |             |             |            |            |              |             |             | 20.0        |            |            |            |            |              |             |             | 5.90        |
| 8R2 8.2  | 100         |             |            |            |              |             |             |             | 1.14       |            |            |            |              |             |             |             |
| 8R6 8.6  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 8R7 8.7  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 8R9 8.9  |             |             |            |            |              |             |             |             |            |            |            |            |              |             |             |             |
| 100 10   | 150         | 120         | 72         | 49         | 35           | 28          | 25          | 21.6        | 1.10       | 1.35       | 1.68       | 1.84       | 4.4          | 4.50        | 4.00        | 5.40        |
| 120 12   | 200         | 130         | 98         | 58         |              | 38          | 27          | 24.3        | 1.00       | 1.22       | 1.52       | 1.71       |              | 4.00        | 3.50        | 4.90        |
| 150 15   | 230         | 180         | 130        | 81         | 50           | 50          | 30          | 27.0        | 0.90       | 1.11       | 1.33       | 1.47       | 3.6          | 3.20        | 3.30        | 4.50        |
| 180 18   | 270         | 240         | 140        | 91         |              | 57          | 34          | 39.2        | 0.80       | 1.02       | 1.20       | 1.31       |              | 3.10        | 3.00        | 3.90        |
| 220 22   | 340         | 270         | 190        | 110        | 73           | 66          | 36          | 43.2        | 0.74       | 0.91       | 1.07       | 1.23       | 2.9          | 2.90        | 2.80        | 3.60        |
| 270 27   | 380         | 300         | 210        | 150        |              | 80          | 51          | 45.9        | 0.66       | 0.82       | 0.96       | 1.12       |              | 2.80        | 2.30        | 3.40        |
| 330 33   | 450         | 330         | 240        | 170        | 93           | 97          | 57          | 64.8        | 0.59       | 0.74       | 0.91       | 0.96       | 2.3          | 2.70        | 2.10        | 3.00        |
| 390 39   | 490         | 370         | 320        | 230        |              | 132         | 68          | 72.9        | 0.54       | 0.69       | 0.77       | 0.91       |              | 2.10        | 2.00        | 2.75        |
| 470 47   | 690         | 520         | 360        | 260        | 128          | 150         | 75          | 100         | 0.50       | 0.62       | 0.76       | 0.88       | 2.1          | 1.90        | 1.80        | 2.50        |
| 560 56   | 780         | 560         | 470        | 350        |              | 190         | 110         | 110         | 0.46       | 0.58       | 0.68       | 0.75       |              | 1.80        | 1.70        | 2.35        |
| 680 68   | 1070        | 630         | 520        | 380        | 213          | 220         | 120         | 140         | 0.42       | 0.51       | 0.61       | 0.69       | 1.5          | 1.50        | 1.50        | 2.10        |
| 820 82   | 1210        | 710         | 690        | 430        |              | 260         | 140         | 160         | 0.38       | 0.46       | 0.57       | 0.61       |              | 1.30        | 1.40        | 1.95        |
| 101 100  | 1390        | 1030        | 790        | 610        | 304          | 308         | 160         | 220         | 0.34       | 0.42       | 0.50       | 0.60       | 1.35         | 1.20        | 1.30        | 1.70        |
| 121 120  | 1900        | 1150        | 890        | 660        |              | 380         | 170         | 250         | 0.31       | 0.38       | 0.49       | 0.52       |              | 1.10        | 1.10        | 1.60        |
| 151 150  | 2180        | 1680        | 1270       | 880        | 506          | 530         | 230         | 280         | 0.28       | 0.35       | 0.43       | 0.46       | 1.15         | 0.95        | 1.00        | 1.42        |
| 181 180  | 2770        | 1870        | 1450       | 980        |              | 620         | 290         | 350         | 0.26       | 0.32       | 0.39       | 0.42       |              | 0.85        | 0.90        | 1.30        |
| 221 220  | 3120        | 2080        | 1650       | 1170       | 756          | 700         | 400         | 390         | 0.23       | 0.29       | 0.35       | 0.36       | 0.92         | 0.80        | 0.80        | 1.16        |
| 271 270  | 4380        | 2370        | 2310       | 1640       |              | 876         | 460         | 560         | 0.22       | 0.26       | 0.32       | 0.34       |              | 0.60        | 0.75        | 1.06        |
| 331 330  | 4940        | 2670        | 2620       | 1860       | 1.09         | 990         | 510         | 640         | 0.19       | 0.23       | 0.28       | 0.32       | 0.70         | 0.50        | 0.68        | 0.95        |
| 391 390  |             | 2940        | 2940       | 2850       |              |             | 690         | 700         |            | 0.22       | 0.26       | 0.29       |              |             | 0.65        | 0.88        |
| 471 470  |             | 3930        | 4180       | 3010       |              |             | 770         | 980         |            | 0.20       | 0.24       | 0.26       |              |             | 0.58        | 0.79        |
| 561 560  |             | 5430        | 4670       | 3620       |              |             | 860         | 1070        |            | 0.18       | 0.22       | 0.23       |              |             | 0.54        | 0.73        |
| 681 680  |             | 7320        | 5730       | 4630       |              |             | 1200        | 1460        |            | 0.17       | 0.19       | 0.22       |              |             | 0.48        | 0.67        |
| 821 820  |             | 8240        | 6540       | 5200       |              |             | 1340        | 1640        |            | 0.15       | 0.18       | 0.20       |              |             | 0.43        | 0.60        |
| 102 1000 |             | 9260        | 9440       | 6000       |              |             | 1530        | 1820        |            | 0.14       | 0.16       | 0.18       |              |             | 0.40        | 0.55        |

• Test Freq.(L): SCDS62: 3.3 ~ 8.2H(7.96MHz/1V), 10~82H(2.52MHz/1V), 100 ~ 330H(1KHz/1V)

SCDS64/73/74/125/127: (1KHz/1V)

• Other type

Rated current :The rate current indicates the current when the inductance decreases to 65%. Over of it's nominal value or D.C.current when the temperature rising Dt =40°C lower, whichever is lower.

• Test Instrument :L

: HP4192A LF IMPEDANCE ANALYZER

RDC

: CHEN HWA 502BC

Rated current: HP4284+42841A or Ch1061+CH301A

Tolerance Of Inductors

- SCDS62 3.3~330H 20%(M)
- SCDS64 10~1000H 20%(M)
- SCDS73 10~1000H 20%(M)
- SCDS74 10~1000H 20%(M)
- SCDS104R 1.5~330H 30%(T)
- SCDS124 3.9~330H 20%(M)
- SCDS125 1.0~1000H 20%(M)
- SCDS127 1.2~7.6H+40-20%(N)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE             | Inductance(μH) | Test Freq   | RDC(Ω)Max | IDC(A)Max |
|------------------|----------------|-------------|-----------|-----------|
| SCDS62T-3R3 □ -N | 3.3            | 7.96MHz, IV | 0.068+0   | 1.94      |
| SCDS62T-3R6 □ -N | 3.6            | 7.96MHz, IV | 0.08+0    | 1.63      |
| SCDS62T-4R7 □ -N | 4.7            | 7.96MHz, IV | 0.08+0    | 1.63      |
| SCDS62T-5R6 □ -N | 5.6            | 7.96MHz, IV | 0.96+0    | 1.4       |
| SCDS62T-6R8 □ -N | 6.8            | 7.96MHz, IV | 0.1+0     | 1.33      |
| SCDS62T-8R2 □ -N | 8.2            | 7.96MHz, IV | 0.1+0     | 1.14      |
| SCDS62T-100 □ -N | 10             | 2.52MHz, IV | 0.15+0    | 1.1       |
| SCDS62T-120 □ -N | 12             | 2.52MHz, IV | 0.2+0     | 1         |
| SCDS62T-150 □ -N | 15             | 2.52MHz, IV | 0.23+0    | 0.9       |
| SCDS62T-180 □ -N | 18             | 2.52MHz, IV | 0.27+0    | 0.8       |
| SCDS62T-220 □ -N | 22             | 2.52MHz, IV | 0.34+0    | 0.74      |
| SCDS62T-270 □ -N | 27             | 2.52MHz, IV | 0.38+0    | 0.66      |
| SCDS62T-330 □ -N | 33             | 2.52MHz, IV | 0.45+0    | 0.59      |
| SCDS62T-390 □ -N | 39             | 2.52MHz, IV | 0.49+0    | 0.54      |
| SCDS62T-470 □ -N | 47             | 2.52MHz, IV | 0.69+0    | 0.5       |
| SCDS62T-560 □ -N | 56             | 2.52MHz, IV | 0.78+0    | 0.46      |
| SCDS62T-680 □ -N | 68             | 2.52MHz, IV | 1.07+0    | 0.42      |
| SCDS62T-820 □ -N | 82             | 2.52MHz, IV | 1.21+0    | 0.38      |
| SCDS62T-101 □ -N | 100            | 1KHz, IV    | 1.39+0    | 0.34      |
| SCDS62T-121 □ -N | 120            | 1KHz, IV    | 1.9+0     | 0.31      |
| SCDS62T-151 □ -N | 150            | 1KHz, IV    | 2.18+0    | 0.28      |
| SCDS62T-181 □ -N | 180            | 1KHz, IV    | 2.77+0    | 0.26      |
| SCDS62T-221 □ -N | 220            | 1KHz, IV    | 3.12+0    | 0.23      |
| SCDS62T-271 □ -N | 270            | 1KHz, IV    | 4.38+0    | 0.22      |
| SCDS62T-331 □ -N | 330            | 1KHz, IV    | 4.94+0    | 0.19      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%  
1.Operating temperature range -40°C~85°C  
2.Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE             | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | IDC(A)Max |
|------------------|----------------------|-----------|--------------------|-----------|
| SCDS64T-100 □ -N | 10                   | 1KHz, 1V  | 0.12+0             | 1.35      |
| SCDS64T-120 □ -N | 12                   | 1KHz, 1V  | 0.13+0             | 1.22      |
| SCDS64T-150 □ -N | 15                   | 1KHz, 1V  | 0.18+0             | 1.11      |
| SCDS64T-180 □ -N | 18                   | 1KHz, 1V  | 0.24+0             | 1.02      |
| SCDS64T-220 □ -N | 22                   | 1KHz, 1V  | 0.27+0             | 0.91      |
| SCDS64T-270 □ -N | 27                   | 1KHz, 1V  | 0.3+0              | 0.82      |
| SCDS64T-330 □ -N | 33                   | 1KHz, 1V  | 0.33+0             | 0.74      |
| SCDS64T-390 □ -N | 39                   | 1KHz, 1V  | 0.37+0             | 0.69      |
| SCDS64T-470 □ -N | 47                   | 1KHz, 1V  | 0.52+0             | 0.62      |
| SCDS64T-560 □ -N | 56                   | 1KHz, 1V  | 0.56+0             | 0.58      |
| SCDS64T-680 □ -N | 68                   | 1KHz, 1V  | 0.63+0             | 0.51      |
| SCDS64T-820 □ -N | 82                   | 1KHz, 1V  | 0.71+0             | 0.46      |
| SCDS64T-101 □ -N | 100                  | 1KHz, 1V  | 1.03+0             | 0.42      |
| SCDS64T-121 □ -N | 120                  | 1KHz, 1V  | 1.15+0             | 0.38      |
| SCDS64T-151 □ -N | 150                  | 1KHz, 1V  | 1.68+0             | 0.35      |
| SCDS64T-181 □ -N | 180                  | 1KHz, 1V  | 1.87+0             | 0.32      |
| SCDS64T-221 □ -N | 220                  | 1KHz, 1V  | 2.08+0             | 0.29      |
| SCDS64T-271 □ -N | 270                  | 1KHz, 1V  | 2.37+0             | 0.26      |
| SCDS64T-331 □ -N | 330                  | 1KHz, 1V  | 2.67+0             | 0.23      |
| SCDS64T-391 □ -N | 390                  | 1KHz, 1V  | 2.94+0             | 0.22      |
| SCDS64T-471 □ -N | 470                  | 1KHz, 1V  | 3.93+0             | 0.2       |
| SCDS64T-561 □ -N | 560                  | 1KHz, 1V  | 5.43+0             | 0.18      |
| SCDS64T-681 □ -N | 680                  | 1KHz, 1V  | 7.32+0             | 0.17      |
| SCDS64T-821 □ -N | 820                  | 1KHz, 1V  | 8.24+0             | 0.15      |
| SCDS64T-102 □ -N | 1000                 | 1KHz, 1V  | 9.26+0             | 0.14      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE             | Inductance(μH) | Test Freq | RDC(Ω)Max | IDC(A)Max |
|------------------|----------------|-----------|-----------|-----------|
| SCDS73T-100 □ -N | 10             | 1KHz,1V   | 0.072+0   | 1.68      |
| SCDS73T-120 □ -N | 12             | 1KHz,1V   | 0.098+0   | 1.52      |
| SCDS73T-150 □ -N | 15             | 1KHz,1V   | 0.13+0    | 1.33      |
| SCDS73T-180 □ -N | 18             | 1KHz,1V   | 0.14+0    | 1.2       |
| SCDS73T-220 □ -N | 22             | 1KHz,1V   | 0.19+0    | 1.07      |
| SCDS73T-270 □ -N | 27             | 1KHz,1V   | 0.21+0    | 0.96      |
| SCDS73T-330 □ -N | 33             | 1KHz,1V   | 0.24+0    | 0.91      |
| SCDS73T-390 □ -N | 39             | 1KHz,1V   | 0.32+0    | 0.77      |
| SCDS73T-470 □ -N | 47             | 1KHz,1V   | 0.36+0    | 0.76      |
| SCDS73T-560 □ -N | 56             | 1KHz,1V   | 0.47+0    | 0.68      |
| SCDS73T-680 □ -N | 68             | 1KHz,1V   | 0.52+0    | 0.61      |
| SCDS73T-820 □ -N | 82             | 1KHz,1V   | 0.69+0    | 0.57      |
| SCDS73T-101 □ -N | 100            | 1KHz,1V   | 0.79+0    | 0.5       |
| SCDS73T-121 □ -N | 120            | 1KHz,1V   | 0.89+0    | 0.49      |
| SCDS73T-151 □ -N | 150            | 1KHz,1V   | 1.27+0    | 0.43      |
| SCDS73T-181 □ -N | 180            | 1KHz,1V   | 1.45+0    | 0.39      |
| SCDS73T-221 □ -N | 220            | 1KHz,1V   | 1.65+0    | 0.35      |
| SCDS73T-271 □ -N | 270            | 1KHz,1V   | 2.31+0    | 0.32      |
| SCDS73T-331 □ -N | 330            | 1KHz,1V   | 2.62+0    | 0.28      |
| SCDS73T-391 □ -N | 390            | 1KHz,1V   | 2.94+0    | 0.26      |
| SCDS73T-471 □ -N | 470            | 1KHz,1V   | 4.18+0    | 0.24      |
| SCDS73T-561 □ -N | 560            | 1KHz,1V   | 4.67+0    | 0.22      |
| SCDS73T-681 □ -N | 680            | 1KHz,1V   | 5.73+0    | 0.19      |
| SCDS73T-821 □ -N | 820            | 1KHz,1V   | 6.54+0    | 0.18      |
| SCDS73T-102 □ -N | 1000           | 1KHz,1V   | 9.44+0    | 0.16      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%  
1.Operating temperature range -40°C~85°C  
2.Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE             | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | IDC(A)Max |
|------------------|----------------------|-----------|--------------------|-----------|
| SCDS74T-100 □ -N | 10                   | 1KHz, 1V  | 0.049+0            | 1.84      |
| SCDS74T-120 □ -N | 12                   | 1KHz, 1V  | 0.058+0            | 1.71      |
| SCDS74T-150 □ -N | 15                   | 1KHz, 1V  | 0.081+0            | 1.47      |
| SCDS74T-180 □ -N | 18                   | 1KHz, 1V  | 0.091+0            | 1.31      |
| SCDS74T-220 □ -N | 22                   | 1KHz, 1V  | 0.11+0             | 1.23      |
| SCDS74T-270 □ -N | 27                   | 1KHz, 1V  | 0.15+0             | 1.12      |
| SCDS74T-330 □ -N | 33                   | 1KHz, 1V  | 0.17+0             | 0.96      |
| SCDS74T-390 □ -N | 39                   | 1KHz, 1V  | 0.23+0             | 0.91      |
| SCDS74T-470 □ -N | 47                   | 1KHz, 1V  | 0.26+0             | 0.88      |
| SCDS74T-560 □ -N | 56                   | 1KHz, 1V  | 0.35+0             | 0.75      |
| SCDS74T-680 □ -N | 68                   | 1KHz, 1V  | 0.38+0             | 0.69      |
| SCDS74T-820 □ -N | 82                   | 1KHz, 1V  | 0.43+0             | 0.61      |
| SCDS74T-101 □ -N | 100                  | 1KHz, 1V  | 0.61+0             | 0.6       |
| SCDS74T-121 □ -N | 120                  | 1KHz, 1V  | 0.66+0             | 0.52      |
| SCDS74T-151 □ -N | 150                  | 1KHz, 1V  | 0.88+0             | 0.46      |
| SCDS74T-181 □ -N | 180                  | 1KHz, 1V  | 0.98+0             | 0.42      |
| SCDS74T-221 □ -N | 220                  | 1KHz, 1V  | 1.17+0             | 0.36      |
| SCDS74T-271 □ -N | 270                  | 1KHz, 1V  | 1.64+0             | 0.34      |
| SCDS74T-331 □ -N | 330                  | 1KHz, 1V  | 1.86+0             | 0.32      |
| SCDS74T-391 □ -N | 390                  | 1KHz, 1V  | 2.85+0             | 0.29      |
| SCDS74T-471 □ -N | 470                  | 1KHz, 1V  | 3.01+0             | 0.26      |
| SCDS74T-561 □ -N | 560                  | 1KHz, 1V  | 3.62+0             | 0.23      |
| SCDS74T-681 □ -N | 680                  | 1KHz, 1V  | 4.63+0             | 0.22      |
| SCDS74T-821 □ -N | 820                  | 1KHz, 1V  | 5.2+0              | 0.2       |
| SCDS74T-102 □ -N | 1000                 | 1KHz, 1V  | 6.0+0              | 0.18      |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance(μH) | Test Freq  | RDC(Ω)Max | IDC(A)Max |
|-------------------|----------------|------------|-----------|-----------|
| SCDSI04R-1R5 □ -N | 1.5            | 100KHz, IV | 0.0081+0  | 10        |
| SCDSI04R-2R5 □ -N | 2.5            | 100KHz, IV | 0.0105+0  | 7.5       |
| SCDSI04R-3R8 □ -N | 3.8            | 100KHz, IV | 0.013+0   | 6         |
| SCDSI04R-5R2 □ -N | 5.2            | 100KHz, IV | 0.022+0   | 5.5       |
| SCDSI04R-6R8 □ -N | 6.8            | 100KHz, IV | 0.027+0   | 5         |
| SCDSI04R-7R0 □ -N | 7              | 100KHz, IV | 0.027+0   | 4.8       |
| SCDSI04R-100 □ -N | 10             | 100KHz, IV | 0.035+0   | 4.4       |
| SCDSI04R-150 □ -N | 15             | 100KHz, IV | 0.050+0   | 3.6       |
| SCDSI04R-220 □ -N | 22             | 100KHz, IV | 0.073+0   | 2.9       |
| SCDSI04R-330 □ -N | 33             | 100KHz, IV | 0.093+0   | 2.3       |
| SCDSI04R-390 □ -N | 39             | 100KHz, IV | 0.128+0   | 2.1       |
| SCDSI04R-470 □ -N | 47             | 100KHz, IV | 0.128+0   | 2.1       |
| SCDSI04R-680 □ -N | 68             | 100KHz, IV | 0.213+0   | 1.5       |
| SCDSI04R-820 □ -N | 82             | 100KHz, IV | 0.290+0   | 1.4       |
| SCDSI04R-101 □ -N | 100            | 100KHz, IV | 0.304+0   | 1.35      |
| SCDSI04R-151 □ -N | 150            | 100KHz, IV | 0.506+0   | 1.15      |
| SCDSI04R-201 □ -N | 200            | 100KHz, IV | 0.756+0   | 0.92      |
| SCDSI04R-221 □ -N | 220            | 100KHz, IV | 0.756+0   | 0.92      |
| SCDSI04R-331 □ -N | 330            | 100KHz, IV | 1.090+0   | 0.7       |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%  
1.Operating temperature range -40°C~85°C  
2.Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|------------|--------------------|-----------|
| SCDSI24T-3R3 □ -N | 3.3                  | 100KHz, IV | 0.015+0            | 6.5       |
| SCDSI24T-3R9 □ -N | 3.9                  | 100KHz, IV | 0.015+0            | 6.5       |
| SCDSI24T-4R7 □ -N | 4.7                  | 100KHz, IV | 0.018+0            | 5.7       |
| SCDSI24T-6R8 □ -N | 6.8                  | 100KHz, IV | 0.023+0            | 4.9       |
| SCDSI24T-100 □ -N | 10                   | 100KHz, IV | 0.028+0            | 4.5       |
| SCDSI24T-120 □ -N | 12                   | 100KHz, IV | 0.038+0            | 4         |
| SCDSI24T-150 □ -N | 15                   | 100KHz, IV | 0.050+0            | 3.2       |
| SCDSI24T-180 □ -N | 18                   | 100KHz, IV | 0.057+0            | 3.1       |
| SCDSI24T-220 □ -N | 22                   | 100KHz, IV | 0.066+0            | 2.9       |
| SCDSI24T-270 □ -N | 27                   | 100KHz, IV | 0.080+0            | 2.8       |
| SCDSI24T-330 □ -N | 33                   | 100KHz, IV | 0.097+0            | 2.7       |
| SCDSI24T-390 □ -N | 39                   | 100KHz, IV | 0.132+0            | 2.1       |
| SCDSI24T-470 □ -N | 47                   | 100KHz, IV | 0.150+0            | 1.9       |
| SCDSI24T-560 □ -N | 56                   | 100KHz, IV | 0.190+0            | 1.8       |
| SCDSI24T-680 □ -N | 68                   | 100KHz, IV | 0.220+0            | 1.5       |
| SCDSI24T-820 □ -N | 82                   | 100KHz, IV | 0.260+0            | 1.3       |
| SCDSI24T-101 □ -N | 100                  | 100KHz, IV | 0.308+0            | 1.2       |
| SCDSI24T-121 □ -N | 120                  | 100KHz, IV | 0.380+0            | 1.1       |
| SCDSI24T-151 □ -N | 150                  | 100KHz, IV | 0.530+0            | 0.95      |
| SCDSI24T-181 □ -N | 180                  | 100KHz, IV | 0.620+0            | 0.85      |
| SCDSI24T-221 □ -N | 220                  | 100KHz, IV | 0.700+0            | 0.8       |
| SCDSI24T-271 □ -N | 270                  | 100KHz, IV | 0.876+0            | 0.6       |
| SCDSI24T-331 □ -N | 330                  | 100KHz, IV | 0.990+0            | 0.5       |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance(μH) | Test Freq | RDC(Ω)Max | IDC(A)Max |
|-------------------|----------------|-----------|-----------|-----------|
| SCDSI25T-3R3 □ -N | 3.3            | 1KHz,1V   | 0.0158+0  | 8         |
| SCDSI25T-4R7 □ -N | 4.7            | 1KHz,1V   | 0.018+0   | 7.6       |
| SCDSI25T-100 □ -N | 10             | 1KHz,1V   | 0.025+0   | 4         |
| SCDSI25T-120 □ -N | 12             | 1KHz,1V   | 0.027+0   | 3.5       |
| SCDSI25T-150 □ -N | 15             | 1KHz,1V   | 0.03+0    | 3.3       |
| SCDSI25T-180 □ -N | 18             | 1KHz,1V   | 0.034+0   | 3         |
| SCDSI25T-220 □ -N | 22             | 1KHz,1V   | 0.036+0   | 2.8       |
| SCDSI25T-270 □ -N | 27             | 1KHz,1V   | 0.051+0   | 2.3       |
| SCDSI25T-330 □ -N | 33             | 1KHz,1V   | 0.057+0   | 2.1       |
| SCDSI25T-390 □ -N | 39             | 1KHz,1V   | 0.068+0   | 2         |
| SCDSI25T-470 □ -N | 47             | 1KHz,1V   | 0.075+0   | 1.8       |
| SCDSI25T-560 □ -N | 56             | 1KHz,1V   | 0.11+0    | 1.7       |
| SCDSI25T-680 □ -N | 68             | 1KHz,1V   | 0.12+0    | 1.5       |
| SCDSI25T-820 □ -N | 82             | 1KHz,1V   | 0.14+0    | 1.4       |
| SCDSI25T-101 □ -N | 100            | 1KHz,1V   | 0.16+0    | 1.3       |
| SCDSI25T-121 □ -N | 120            | 1KHz,1V   | 0.17+0    | 1.1       |
| SCDSI25T-151 □ -N | 150            | 1KHz,1V   | 0.23+0    | 1         |
| SCDSI25T-181 □ -N | 180            | 1KHz,1V   | 0.29+0    | 0.9       |
| SCDSI25T-221 □ -N | 220            | 1KHz,1V   | 0.4+0     | 0.8       |
| SCDSI25T-271 □ -N | 270            | 1KHz,1V   | 0.46+0    | 0.75      |
| SCDSI25T-331 □ -N | 330            | 1KHz,1V   | 0.51+0    | 0.68      |
| SCDSI25T-391 □ -N | 390            | 1KHz,1V   | 0.69+0    | 0.65      |
| SCDSI25T-471 □ -N | 470            | 1KHz,1V   | 0.77+0    | 0.58      |
| SCDSI25T-561 □ -N | 560            | 1KHz,1V   | 0.86+0    | 0.54      |
| SCDSI25T-681 □ -N | 680            | 1KHz,1V   | 1.2+0     | 0.48      |
| SCDSI25T-821 □ -N | 820            | 1KHz,1V   | 1.34+0    | 0.43      |
| SCDSI25T-102 □ -N | 1000           | 1KHz,1V   | 1.53+0    | 0.4       |

NOTE : □ -tolerance K=±10% / ±15% / M=±20% / N=+40% -20%

1.Operating temperature range -40°C~85°C

2.Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ )Max | IDC(A)Max |
|-------------------|----------------------|------------|--------------------|-----------|
| SCDSI27T-1R2 □ -N | 1.2                  | 100KHz, IV | 0.007+0            | 9.8       |
| SCDSI27T-2R4 □ -N | 2.4                  | 100KHz, IV | 0.0115+0           | 8         |
| SCDSI27T-3R3 □ -N | 3.3                  | 100KHz, IV | 0.0135+0           | 7.5       |
| SCDSI27T-3R5 □ -N | 3.5                  | 100KHz, IV | 0.0135+0           | 7.5       |
| SCDSI27T-4R7 □ -N | 4.7                  | 100KHz, IV | 0.0158+0           | 6.8       |
| SCDSI27T-6R1 □ -N | 6.1                  | 100KHz, IV | 0.0176+0           | 6.6       |
| SCDSI27T-7R6 □ -N | 7.6                  | 100KHz, IV | 0.02+0             | 5.9       |
| SCDSI27T-100 □ -N | 10                   | 1KHz, IV   | 0.0216+0           | 5.4       |
| SCDSI27T-120 □ -N | 12                   | 1KHz, IV   | 0.0243+0           | 4.9       |
| SCDSI27T-150 □ -N | 15                   | 1KHz, IV   | 0.027+0            | 4.5       |
| SCDSI27T-180 □ -N | 18                   | 1KHz, IV   | 0.0392+0           | 3.9       |
| SCDSI27T-220 □ -N | 22                   | 1KHz, IV   | 0.0432+0           | 3.6       |
| SCDSI27T-270 □ -N | 27                   | 1KHz, IV   | 0.0459+0           | 3.4       |
| SCDSI27T-330 □ -N | 33                   | 1KHz, IV   | 0.0648+0           | 3         |
| SCDSI27T-390 □ -N | 39                   | 1KHz, IV   | 0.0729+0           | 2.75      |
| SCDSI27T-470 □ -N | 47                   | 1KHz, IV   | 0.1+0              | 2.5       |
| SCDSI27T-560 □ -N | 56                   | 1KHz, IV   | 0.11+0             | 2.35      |
| SCDSI27T-680 □ -N | 68                   | 1KHz, IV   | 0.14+0             | 2.1       |
| SCDSI27T-820 □ -N | 82                   | 1KHz, IV   | 0.16+0             | 1.95      |
| SCDSI27T-101 □ -N | 100                  | 1KHz, IV   | 0.22+0             | 1.7       |
| SCDSI27T-121 □ -N | 120                  | 1KHz, IV   | 0.25+0             | 1.6       |
| SCDSI27T-151 □ -N | 150                  | 1KHz, IV   | 0.28+0             | 1.42      |
| SCDSI27T-181 □ -N | 180                  | 1KHz, IV   | 0.35+0             | 1.3       |
| SCDSI27T-221 □ -N | 220                  | 1KHz, IV   | 0.39+0             | 1.16      |
| SCDSI27T-271 □ -N | 270                  | 1KHz, IV   | 0.56+0             | 1.06      |
| SCDSI27T-331 □ -N | 330                  | 1KHz, IV   | 0.64+0             | 0.95      |
| SCDSI27T-391 □ -N | 390                  | 1KHz, IV   | 0.7+0              | 0.88      |
| SCDSI27T-471 □ -N | 470                  | 1KHz, IV   | 0.98+0             | 0.79      |
| SCDSI27T-561 □ -N | 560                  | 1KHz, IV   | 1.07+0             | 0.73      |
| SCDSI27T-681 □ -N | 680                  | 1KHz, IV   | 1.46+0             | 0.67      |
| SCDSI27T-821 □ -N | 820                  | 1KHz, IV   | 1.64+0             | 0.6       |
| SCDSI27T-102 □ -N | 1000                 | 1KHz, IV   | 1.82+0             | 0.55      |

NOTE : □ -tolerance K=±10% / ±15% / M=±20% / N=+40% -20%

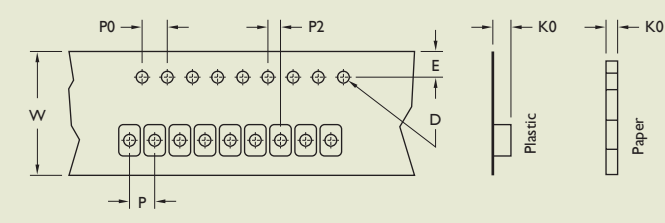
1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at IDC

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

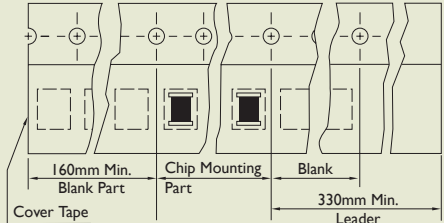


TAPE DIMENSIONS

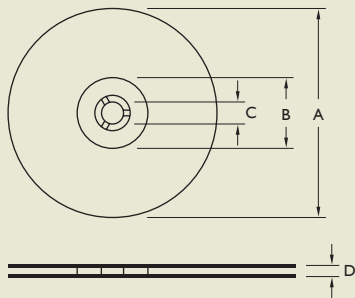


TAPE MATERIAL

Carrier Tape : Polystyrene      Cover Type : Polyethylene

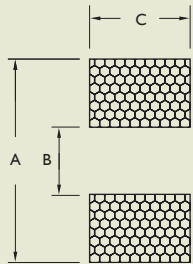


REEL DIMENSIONS



RECOMMENDED PATTERN

Land Pattern



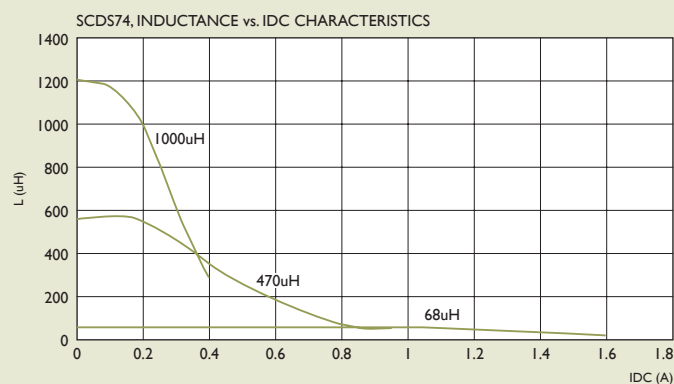
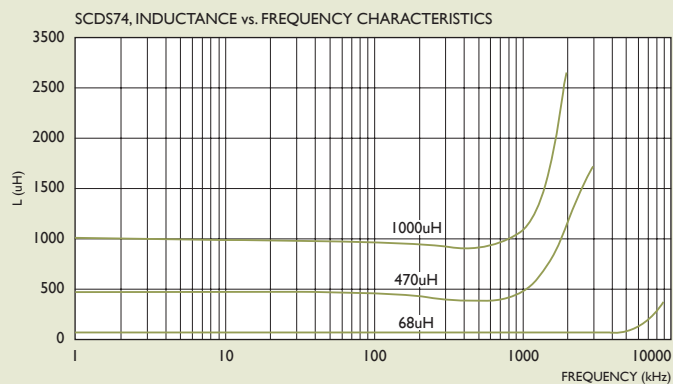
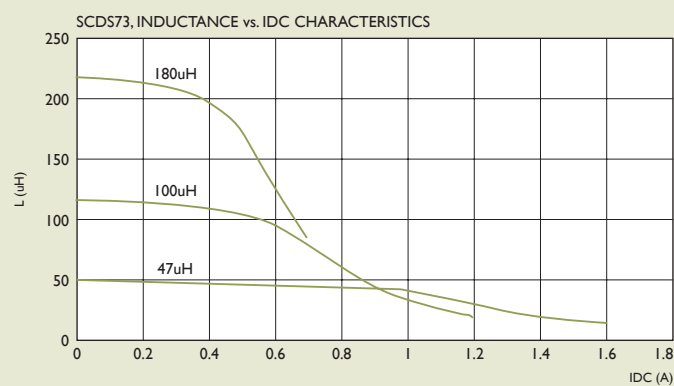
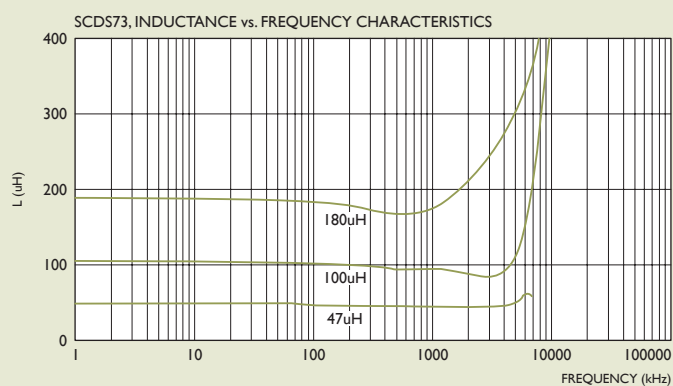
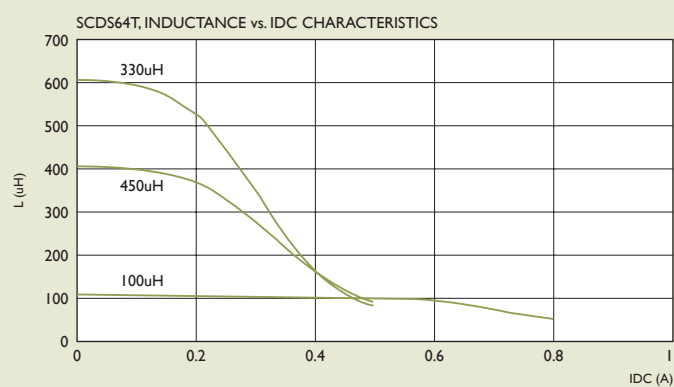
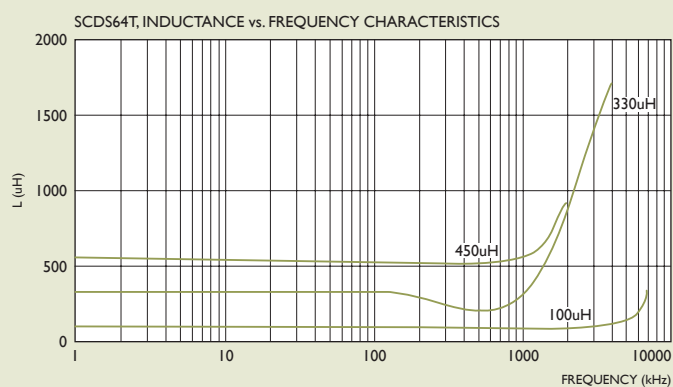
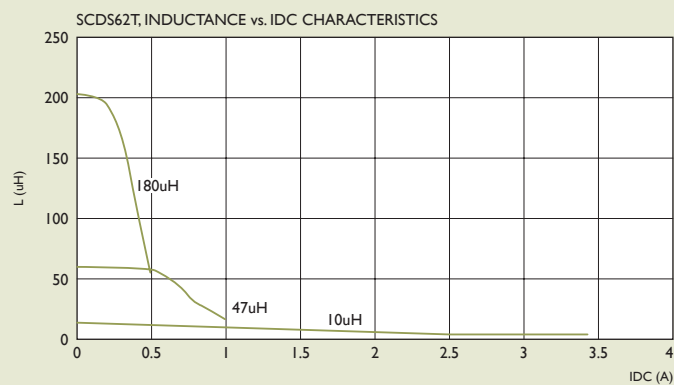
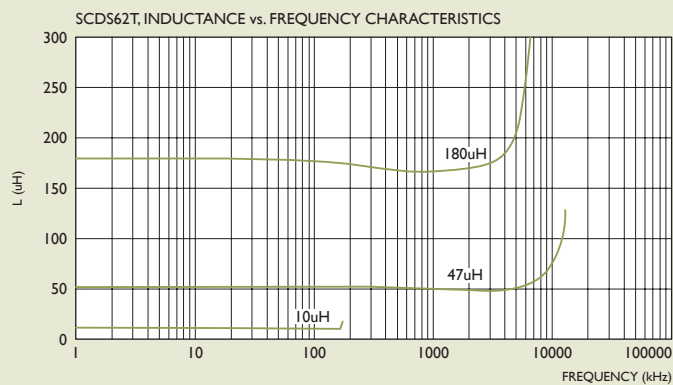
| Dimensions : mm |                 |      |      |    |    |    |    |                     |     |     |                 |     |    |      |          |
|-----------------|-----------------|------|------|----|----|----|----|---------------------|-----|-----|-----------------|-----|----|------|----------|
| TYPE            | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |     |     | REEL DIMENSIONS |     |    |      | QUANTITY |
|                 | K0              | D    | E    | W  | P  | P0 | P2 | A                   | B   | C   | A               | B   | C  | D    | PCS/REEL |
| SCDS62          | 3.4             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.1                 | 4   | 2.5 | 330             | 100 | 13 | 17.4 | 1500     |
| SCDS64          | 4.9             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.1                 | 4   | 2.5 | 330             | 100 | 13 | 17.4 | 1000     |
| SCDS73          | 3.6             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.4                 | 4.4 | 2.2 | 330             | 100 | 13 | 17.4 | 1600     |
| SCDS74          | 5.0             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 8.4                 | 4.4 | 2.2 | 330             | 100 | 13 | 17.4 | 1000     |
| SCDS124         | 5.1             | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 13                  | 7   | 5.4 | 330             | 100 | 13 | 24.4 | 500      |
| SCDS125         | 6.7             | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 13                  | 7   | 5.4 | 330             | 100 | 13 | 24.4 | 600      |
| SCDS127         | 8.7             | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 13                  | 7   | 5.4 | 330             | 100 | 13 | 24.4 | 500      |
| SCDS104R        | 4.1             | 1.50 | 1.75 | 24 | 16 | 4  | 2  | 10.7                | 7.3 | 3.2 | 330             | 100 | 13 | 24.4 | 1000     |



## TYPICAL ELECTRICAL CHARACTERISTICS

Curves of SCDS Series

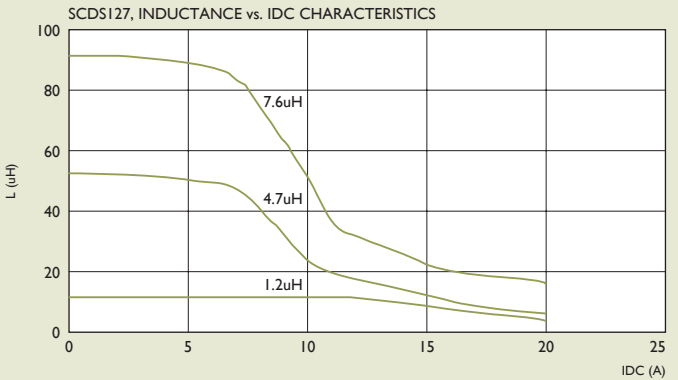
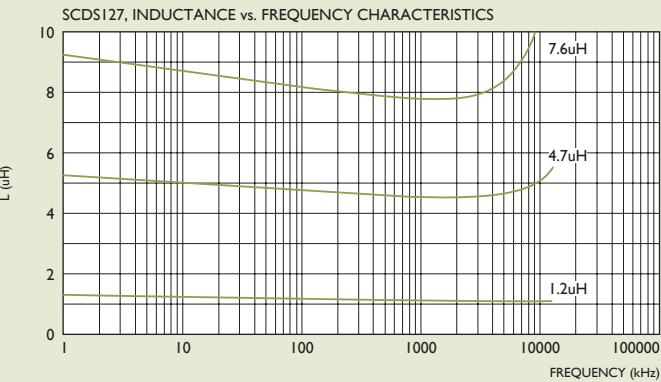
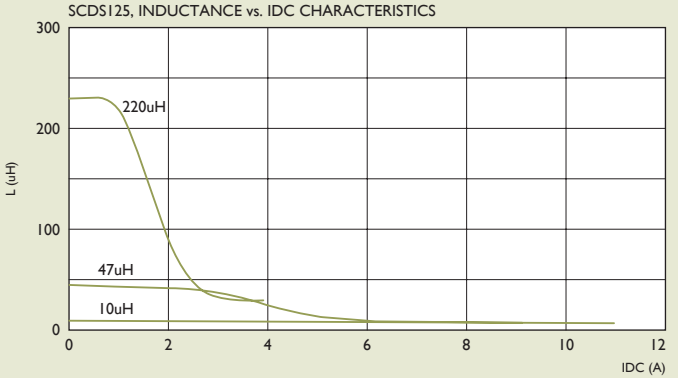
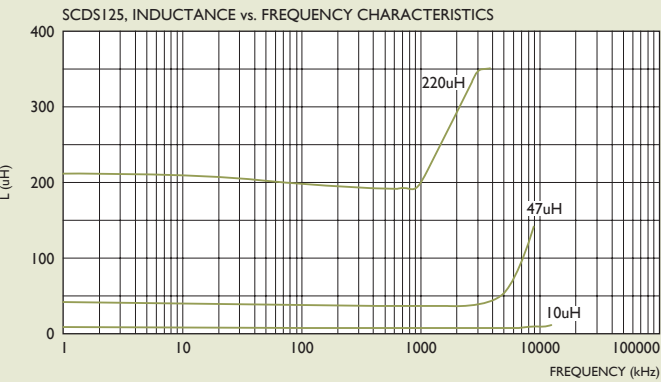
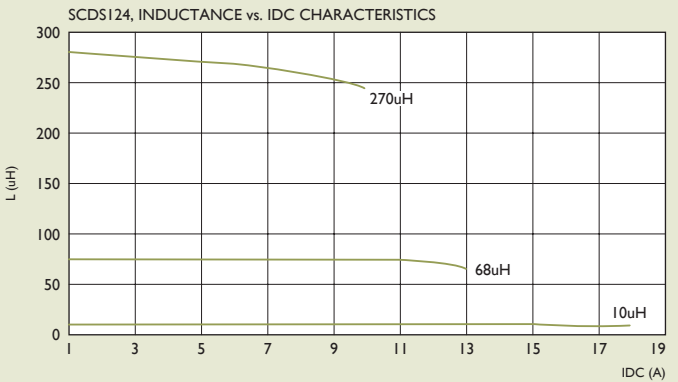
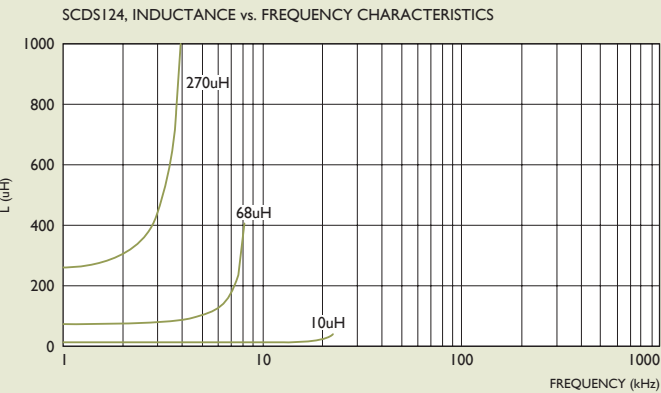
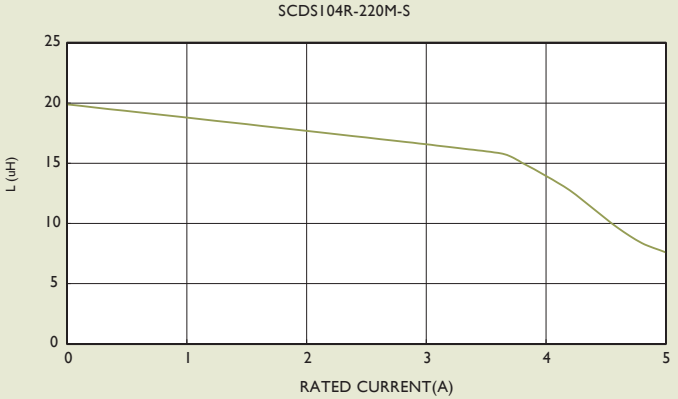
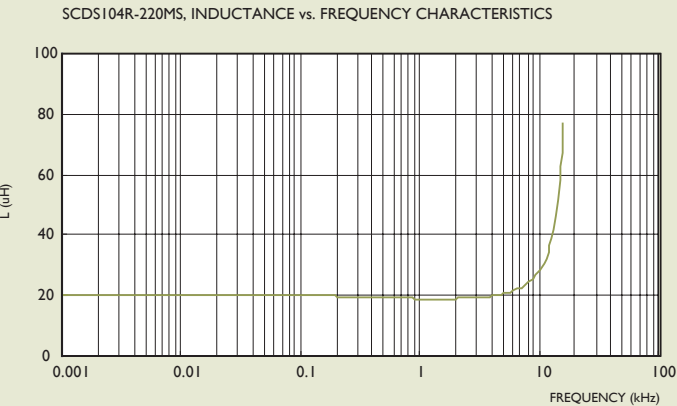
Test Instruments : HP4291A Impedance / Material Analyzer





TYPICAL ELECTRICAL CHARACTERISTICS

TCurves of SCDS Series  
Test Instruments : HP4291A Impedance / Material Analyzer





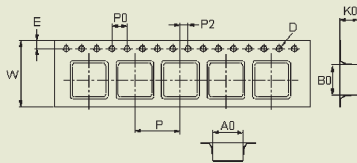
## TYPICAL ELECTRICAL CHARACTERISTICS

Test Instruments : HP4291A Impedance / Material Analyzer

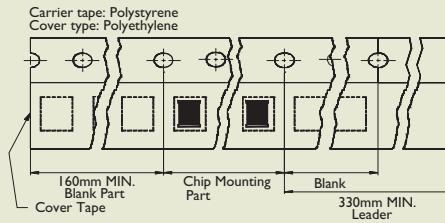
### Packaging Specifications

SCDS 2D11 ~ 6D38

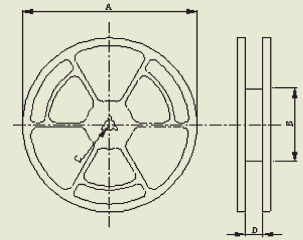
Tape Dimensions



Tape Material



Reel Dimensions



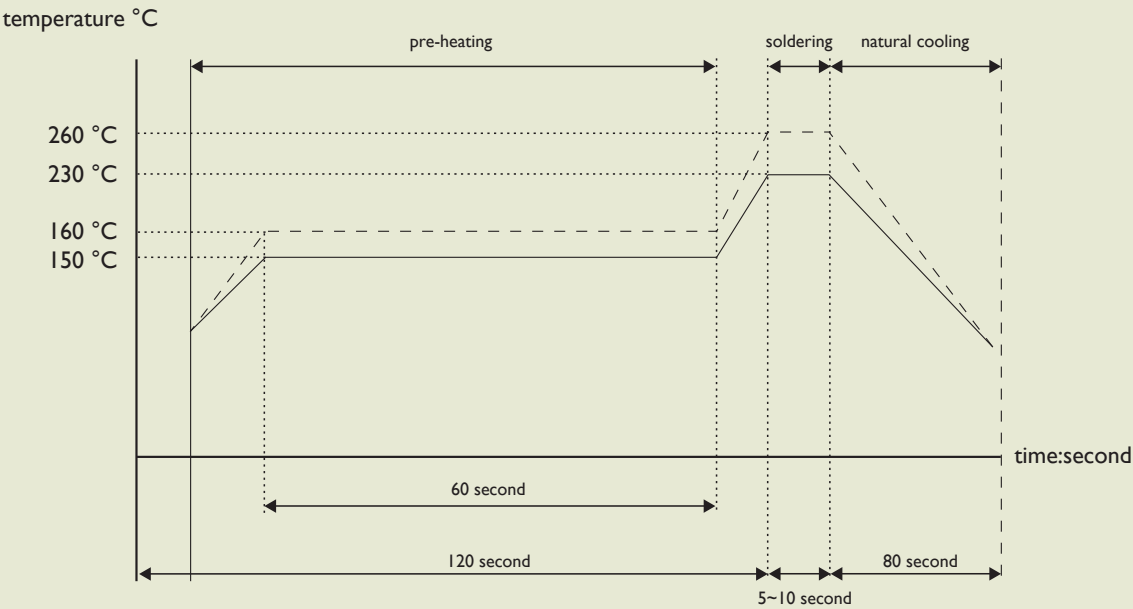
Dimensions : mm

| TYPE       | TAPA DIMENSIONS |     |      |     |      |    |    |    |    | REEL DIMENSIONS |     |    |      | QUANTITY<br>PCS/REEL | RECOMMENDED PATTERN |     |
|------------|-----------------|-----|------|-----|------|----|----|----|----|-----------------|-----|----|------|----------------------|---------------------|-----|
|            | A0              | B0  | K0   | D   | E    | W  | P  | P0 | P2 | A               | B   | C  | D    |                      | A                   | B   |
| ZSCD2D11   | 3.3             | 3.3 | 1.3  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1500                 | 1.3                 | 1.7 |
| SCD2D14    | 3.3             | 3.3 | 1.6  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1000                 | 1.3                 | 1.7 |
| SCDS2S18LD | 3.3             | 3.3 | 1.9  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1000                 | 1.3                 | 1.7 |
| SCDS2S18HP | 3.3             | 3.3 | 1.9  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1000                 | 1.3                 | 1.7 |
| SCDS3D12   | 4.2             | 4.2 | 1.25 | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 5000                 | 4.6                 | 1.6 |
| SCDS3D16   | 4.3             | 4.3 | 2.1  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1000                 | 1.4                 | 2.4 |
| SCDS4D18   | 5.3             | 5.3 | 2.4  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000                 | 1.9                 | 1.5 |
| SCDS4D28   | 5.3             | 5.3 | 3.4  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000                 | 1.9                 | 1.5 |
| SCDS5D18   | 6.2             | 6.2 | 2.2  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000                 | 2.15                | 2.0 |
| SCDS5D28   | 6.2             | 6.2 | 3.2  | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000                 | 2.15                | 2.0 |
| SCDS6D28   | 7.2             | 7.2 | 3.2  | 1.5 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 17.4 | 1500                 | 2.65                | 2.0 |
| SCDS6D38   | 7.1             | 7.1 | 4.1  | 1.5 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 17.4 | 1000                 | 2.65                | 2.0 |



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



|                       |       |
|-----------------------|-------|
| for: lead solder      | ————— |
| for: lead-free solder | ..... |

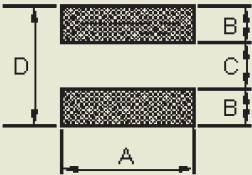
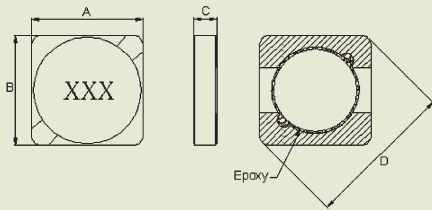
| TYPE           | A   | B   | C   | D   |
|----------------|-----|-----|-----|-----|
| S CDS 2D I I   | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D I 4   | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D I 8LD | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D I 8HP | 1.3 | 1.7 | 1.3 | 4.3 |



SHAPES AND DIMENSIONS

RECOMMENDED PATTERN

SCDS 3D12



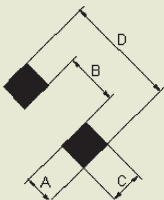
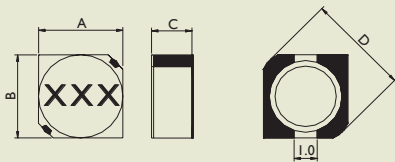
Dimensions in mm

| TYPE     | A   |     | B   |     | C       | D       |
|----------|-----|-----|-----|-----|---------|---------|
| SCDS3D12 | 3.9 | 0.2 | 3.9 | 0.2 | 1.2 Max | 6.2 Max |

Dimensions in mm

| TYPE     | A   | B   | C   | D   |
|----------|-----|-----|-----|-----|
| SCDS3D12 | 4.6 | 1.6 | 1.4 | 4.6 |

SCDS 3D16



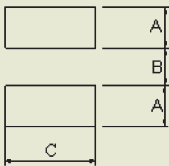
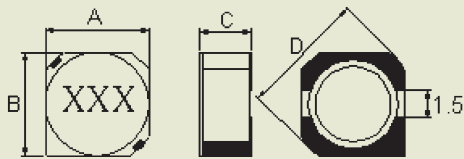
Dimensions in mm

| TAPE     | A      |  | B      |  | C        | D        |
|----------|--------|--|--------|--|----------|----------|
| SCDS3D16 | 4 Max. |  | 4 Max. |  | 1.8 Max. | 5.2 Max. |

Dimensions in mm

| TYPE     | A   | B   | C   | D   |
|----------|-----|-----|-----|-----|
| SCDS3D16 | 1.4 | 2.4 | 1.5 | 5.2 |

SCDS 4D18~6D38

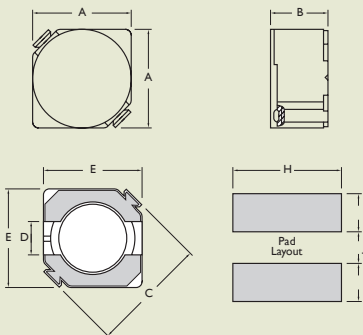


Dimensions in mm

| TAPE     | A   |     | B   |     | C       | D       |
|----------|-----|-----|-----|-----|---------|---------|
| SCDS4D18 | 4.7 | 0.3 | 4.7 | 0.3 | 2.0 Max | 6.9 Max |
| SCDS4D28 | 4.7 | 0.3 | 4.7 | 0.3 | 3.0 Max | 6.9 Max |

Dimensions in mm

| TYPE       | A   | B   | C   |
|------------|-----|-----|-----|
| S CDS 4D18 | 1.9 | 1.5 | 5.3 |
| S CDS 4D28 | 1.9 | 1.5 | 5.3 |



| ITEM | A         | B        | C        | D   | E       | H   | I    | J   |
|------|-----------|----------|----------|-----|---------|-----|------|-----|
| 5D18 | 5.7 ± 0.3 | 2.0 Max. | 8.2 Max. | 1.5 | 5.7±0.3 | 6.3 | 2.15 | 2.0 |
| 5D28 | 5.7 ± 0.3 | 3.0 Max. | 8.2 Max. | 1.5 | 5.7±0.3 | 6.3 | 2.15 | 2.0 |
| 6D28 | 6.7 ± 0.3 | 3.0 Max. | 9.5 Max. | 1.5 | 6.7±0.3 | 7.3 | 2.65 | 2.0 |
| 6D38 | 7.0 ± 0.0 | 4.0 Max. | 9.5 Max. | 1.5 | 7.0±0.0 | 7.3 | 2.65 | 2.0 |



## ELECTRICAL CHARACTERISTICS

### Standard Specifications

| Stamp | Inductance<br>(H) | D.C.R.(mΩ)Max. |              |                |                |              |              |              |              |              |              |              |              | RatedCurrent(A)Max. |              |                |                |              |              |              |              |              |              |              |              |
|-------|-------------------|----------------|--------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|--------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|       |                   | SCDS<br>2D11   | SCDS<br>2D14 | SCDS<br>2D18LD | SCDS<br>2D18HP | SCDS<br>3D12 | SCDS<br>3D16 | SCDS<br>4D18 | SCDS<br>4D28 | SCDS<br>5D18 | SCDS<br>5D28 | SCDS<br>6D28 | SCDS<br>6D38 | SCDS<br>2D11        | SCDS<br>2D14 | SCDS<br>2D18LD | SCDS<br>2D18HP | SCDS<br>3D12 | SCDS<br>3D16 | SCDS<br>4D18 | SCDS<br>4D28 | SCDS<br>5D18 | SCDS<br>5D28 | SCDS<br>6D28 | SCDS<br>6D38 |
| R47   |                   | 40             |              |                |                |              |              |              |              |              |              |              |              | 2                   |              |                |                |              |              |              |              |              |              |              |              |
| 1R0   | 1.0               |                |              |                |                | 40.1±30%     |              | 45           |              |              |              |              |              |                     |              |                |                | 1.54         |              | 1.72         |              |              |              |              |              |
| 1R2   | 1.2               |                |              |                |                |              |              |              | 23.6         |              |              |              |              |                     |              |                |                |              |              |              | 2.56         |              |              |              |              |
| 1R5   | 1.5               | 68             | 63           |                |                | 63.5±30%     | 52           |              |              |              |              |              |              | 0.90                | 1.80         |                |                | 1.32         | 1.55         |              |              |              |              |              |              |
| 1R7   |                   |                |              |                | 44             |              |              |              |              |              |              |              |              |                     |              |                | 1.85           |              |              |              |              |              |              |              |              |
| 1R8   | 1.8               |                | 75           |                |                |              |              |              | 27.5         |              |              |              |              |                     | 1.65         |                |                |              |              |              | 2.20         |              |              |              |              |
| 2R2   | 2.2               | 98             | 94           | 41             | 60             | 83.5±30%     | 72           | 75           | 31.3         |              |              |              |              | 0.78                | 1.50         | 0.85           | 1.6            | 1.12         | 1.20         | 1.32         | 2.04         |              |              |              |              |
| 2R4   | 2.4               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 2R5   | 2.5               |                |              |                |                |              |              |              |              |              | 18           |              |              |                     |              |                |                |              |              |              |              |              | 2.60         |              |              |
| 2R7   | 2.7               |                | 106          |                |                |              |              | 105          | 43.3         | 52           |              |              |              |                     | 1.35         |                |                |              |              | 1.28         | 1.60         | 2.1          |              |              |              |
| 3R0   | 3.0               |                |              |                |                |              |              |              |              |              | 24           | 24           |              |                     |              |                |                |              |              |              |              | 2.40         | 3.00         |              |              |
| 3R3   | 3.3               | 123            | 125          | 54             | 86             | 122±30%      | 85           | 110          | 49.2         |              |              |              | 20           | 0.60                | 1.20         | 0.75           | 1.45           | 0.90         | 1.10         | 1.04         | 1.57         |              |              |              | 3.50         |
| 3R5   | 3.5               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 3R8   | 3.8               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 3R9   | 3.9               | 160            | 138          |                |                |              |              | 155          | 64.8         |              |              | 27           |              | 0.60                | 1.10         |                |                |              |              | 0.88         | 1.44         |              |              | 2.60         |              |
| 4R1   | 4.1               |                |              |                |                |              |              |              |              | 57           |              |              |              |                     |              |                |                |              |              |              |              | 1.95         |              |              |              |
| 4R2   | 4.2               |                |              |                |                |              |              |              |              |              | 31           |              |              |                     |              |                |                |              |              |              |              |              | 2.20         |              |              |
| 4R7   | 4.7               | 170            | 169          | 78             | 140            | 172±30%      | 105          | 162          | 72.0         |              |              | 38           | 31           | 0.50                | 1.00         | 0.63           | 1.2            | 0.72         | 0.90         | 0.84         | 1.32         |              | 1.90         | 2.40         | 3.10         |
| 5R0   | 5.0               |                |              |                |                |              |              |              |              |              |              | 31           | 24           |                     |              |                |                |              |              |              |              |              |              | 2.40         | 2.90         |
| 5R2   | 5.2               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 5R3   | 5.3               |                |              |                |                |              |              |              |              |              | 38           |              |              |                     |              |                |                |              |              |              |              |              | 1.90         |              |              |
| 5R4   | 5.4               |                |              |                |                |              |              |              |              | 76           |              |              |              |                     |              |                |                |              |              |              |              | 1.60         |              |              |              |
| 5R5   | 5.5               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 5R6   | 5.6               |                | 188          |                |                | 191±30%      |              | 170          | 100.9        |              |              | 35           |              |                     | 0.95         |                |                | 0.66         |              | 0.80         | 1.17         |              |              | 2.25         |              |
| 6R0   | 6.0               |                |              |                |                |              |              |              |              |              |              | 35           |              |                     |              |                |                |              |              |              |              |              |              | 2.25         |              |
| 6R1   | 6.1               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 6R2   | 6.2               |                |              |                |                |              |              |              |              | 96           | 45           |              | 27           |                     |              |                |                |              |              |              |              | 1.40         | 1.80         |              | 2.50         |
| 6R3   |                   |                |              | 160            |                |              |              |              |              |              |              |              |              |                     |              |                | 1.05           |              |              |              |              |              |              |              |              |
| 6R8   | 6.8               | 260            | 213          | 106            |                | 218±30%      | 170          | 200          | 108.9        | 100          | 50           | 52           | 29           | 0.44                | 0.85         | 0.52           |                | 0.60         | 0.73         | 0.76         | 1.12         | 1.55         | 1.65         | 2.10         | 2.40         |
| 7R0   | 7.0               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 7R3   | 7.3               |                |              |                |                |              |              |              |              |              |              | 54           |              |                     |              |                |                |              |              |              |              |              |              | 2.10         |              |
| 7R4   | 7.4               |                |              |                |                |              |              |              |              |              |              |              | 31           |                     |              |                |                |              |              |              |              |              |              |              | 2.30         |
| 7R6   | 7.6               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 8R2   | 8.2               |                | 281          |                |                | 255±30%      |              | 245          | 117.5        |              | 53           |              |              |                     | 0.80         |                |                | 0.57         |              | 0.68         | 1.04         |              | 1.60         |              |              |
| 8R6   | 8.6               |                |              |                |                |              |              |              |              |              |              | 58           |              |                     |              |                |                |              |              |              |              |              |              | 1.85         |              |
| 8R7   | 8.7               |                |              |                |                |              |              |              |              |              |              |              | 34           |                     |              |                |                |              |              |              |              |              |              |              | 2.20         |
| 8R9   | 8.9               |                |              |                |                |              |              |              |              | 116          |              |              |              |                     |              |                |                |              |              |              |              | 1.25         |              |              |              |
| 100   | 10                | 400            | 294          | 180            | 245            | 4083±0%      | 210          | 280          | 128.3        | 124          | 65           | 65           | 38           | 0.35                | 0.70         | 0.43           | 0.85           | 0.49         | 0.55         | 0.61         | 1.00         | 1.20         | 1.30         | 1.70         | 2.00         |
| 120   | 12                |                | 394          |                |                | 462±30%      |              | 320          | 131.6        | 153          | 76           | 70           | 53           |                     | 0.62         |                |                | 0.47         |              | 0.56         | 0.84         | 1.10         | 1.20         | 1.55         | 1.70         |
| 150   | 15                |                |              | 220            | 345            | 502±30%      | 295          | 360          | 149.0        | 196          | 103          | 84           | 57           |                     |              | 0.35           | 0.7            | 0.41         | 0.45         | 0.50         | 0.76         | 0.97         | 1.10         | 1.40         | 1.60         |
| 180   | 18                |                |              |                |                | 573±30%      |              | 400          | 166.0        | 210          | 110          | 95           | 92           |                     |              |                |                | 0.37         |              | 0.48         | 0.75         | 0.85         | 1.00         | 1.32         | 1.50         |
| 220   | 22                | 950            |              | 320            |                | 801±30%      | 430          | 480          | 235.0        | 290          | 122          | 128          | 96           | 0.16                |              | 0.30           |                | 0.34         | 0.40         | 0.41         | 0.70         | 0.80         | 0.90         | 1.20         | 1.30         |
| 270   | 27                |                |              |                |                | 1207±30%     | 620          | 570          | 261.0        | 330          | 175          | 142          | 109          |                     |              |                |                | 0.30         | 0.62         | 0.35         | 0.58         | 0.75         | 0.85         | 1.05         | 1.20         |
| 330   | 33                |                |              | 460            |                | 1358±30%     | 675          | 694          | 331.3        | 386          | 189          | 165          | 124          |                     |              | 0.24           |                | 0.28         | 0.32         | 0.32         | 0.56         | 0.65         | 0.75         | 0.97         | 1.10         |
| 390   | 39                |                |              |                |                | 1911±30%     |              | 800          | 383.7        | 520          | 212          | 210          | 138          |                     |              |                | 0.23           |              | 0.30         | 0.50         | 0.57         | 0.70         | 0.86         | 1.00         |              |
| 470   | 47                |                |              | 660            |                |              | 1240         | 950          | 587.0        | 595          | 250          | 238          | 150          |                     |              | 0.20           |                | 0.28         | 0.48         | 0.54         | 0.62         | 0.80         | 0.95         |              |              |
| 560   | 56                |                |              |                |                |              |              | 1080         | 624.5        | 665          | 305          | 277          | 202          |                     |              |                |                |              |              | 0.26         | 0.41         | 0.50         | 0.58         | 0.73         | 0.85         |
| 680   | 68                |                |              |                |                |              |              | 1300         | 699.0        | 840          | 355          | 304          | 234          |                     |              |                |                |              | 0.24         | 0.35         | 0.43         | 0.52         | 0.65         | 0.75         |              |
| 820   | 82                |                |              |                |                |              |              |              | 914.8        | 978          | 463          | 390          | 324          |                     |              |                |                |              |              | 0.32         | 0.41         | 0.46         | 0.60         | 0.70         |              |
| 101   | 100               |                |              |                |                |              |              |              | 1020         | 1200         | 520          | 535          | 358          |                     |              |                |                |              |              |              | 0.29         | 0.36         | 0.42         | 0.54         | 0.65         |
| 121   | 120               |                |              |                |                |              |              |              | 1270         | 1600         |              |              |              |                     |              |                |                |              |              |              | 0.27         | 0.32         |              |              |              |
| 151   | 150               |                |              |                |                |              |              |              | 1350         | 1800         |              |              |              |                     |              |                |                |              |              |              | 0.24         | 0.30         |              |              |              |
| 181   | 180               |                |              |                |                |              |              |              | 1540         |              |              |              |              |                     |              |                |                |              |              |              | 0.22         |              |              |              |              |
| 221   | 220               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 271   | 270               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 331   | 330               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 391   | 390               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |
| 471   | 470               |                |              |                |                |              |              |              |              |              |              |              |              |                     |              |                |                |              |              |              |              |              |              |              |              |

\* Test Freq.(L): SCDS3D12/3D16:(100KHz/0.1V)

SCDS4D18: 1.0 ~ 8.2H(7.96MHz/1V), 10 ~ 39H(100KHz/1V)

SCDS2D11/2D14/2D18LD/4D28/104R/124:(100KHz/1V)

SCDS5D18/5D28/6D28:(10KHz/1V)

SCDS6D38:(10KHz/0.1V)

SCDS62: 3.3 ~ 8.2H(7.96MHz/1V), 10~82H(2.52MHz/1V), 100 ~ 330H(1KHz/1V)

\* SCDS3D12 Rated current : It makes rated current either when the value with 30% declining inductance or the generation of heat becomes 30% near value by the rising one above another of the direct current.

\* Other type Rated current : The rate current indicates the current when the inductance decreases to 65%. Over of it's nominal value or D.C.current when the temperature rising  $\Delta T = 40^{\circ}\text{C}$  lower, whichever is lower.

\* Test Instrument : L : HP4192A LF IMPEDANCE ANALYZER

RDC : CHEN HWA 502BC

Rated current: HP4284+42841A or Ch1061+CH301A

Tolerance Of Inductors

• SCDS2D11 1.5~10H 30%(T)

• SCDS2D14 1.5~12H 30%(T)\* SCDS2D18LD 2.2~4.7H 30%(T)

• SCDS3D12 1.0~39H 30%(T)

• SCDS3D16 1.5~33H 30%(T)

• SCDS4D18 1.0~68H 30%(T)

• SCDS4D28 1.2~180H 30%(T)

• SCDS5D18 4.1~100H 30%(T)

• SCDS5D28 2.5~100H 30%(T)

• SCDS6D28 3.0~100H 30%(T)

• SCDS6D38 3.3~100H 30%(T)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance(μH) | Test Freq  | RDC(Ω)  | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|--------------------|----------------|------------|---------|---------------------|------------|-----------|
| SCDS2D11T-1R5 □ -N | 1.5            | 100KHz, 1V | 0.068+0 | 0.9                 | 1.48       | T         |
| SCDS2D11T-2R2 □ -N | 2.2            | 100KHz, 1V | 0.098+0 | 0.78                | 1.27       | T         |
| SCDS2D11T-3R3 □ -N | 3.3            | 100KHz, 1V | 0.123+0 | 0.6                 | 1.02       | T         |
| SCDS2D11T-3R9 □ -N | 3.9            | 100KHz, 1V | 0.160+0 | 0.6                 | -          | T         |
| SCDS2D11T-4R7 □ -N | 4.7            | 100KHz, 1V | 0.170+0 | 0.5                 | 0.88       | T         |
| SCDS2D11T-6R8 □ -N | 6.8            | 100KHz, 1V | 0.260+0 | 0.44                | 0.8        | T         |
| SCDS2D11T-100 □ -N | 10             | 100KHz, 1V | 0.400+0 | 0.35                | 0.65       | M,T       |
| SCDS2D11T-220 □ -N | 22             | 100KHz, 1V | 0.950+0 | 0.16                | -          | M,T       |

NOTE : □ -tolerance M=±20% / T=±30%  
1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)  
2.Rate current: Inductance drop = 35% typ.  
3.Irms:Δt=40°C  
"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance(μH) | Test Freq  | RDC(Ω)  | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|--------------------|----------------|------------|---------|---------------------|------------|-----------|
| SCDS2D14T-R47 □ -N | 0.47           | 100KHz, 1V | 0.040+0 | 2                   | -          | T         |
| SCDS2D14T-1R5 □ -N | 1.5            | 100KHz, 1V | 0.063+0 | 1.8                 | 2          | T         |
| SCDS2D14T-1R8 □ -N | 1.8            | 100KHz, 1V | 0.075+0 | 1.65                | 1.8        | T         |
| SCDS2D14T-2R2 □ -N | 2.2            | 100KHz, 1V | 0.094+0 | 1.5                 | 1.6        | T         |
| SCDS2D14T-2R7 □ -N | 2.7            | 100KHz, 1V | 0.106+0 | 1.35                | 1.4        | T         |
| SCDS2D14T-3R3 □ -N | 3.3            | 100KHz, 1V | 0.125+0 | 1.2                 | 1.24       | T         |
| SCDS2D14T-3R9 □ -N | 3.9            | 100KHz, 1V | 0.138+0 | 1.1                 | 1.12       | T         |
| SCDS2D14T-4R7 □ -N | 4.7            | 100KHz, 1V | 0.169+0 | 1                   | 1          | M,T       |
| SCDS2D14T-5R6 □ -N | 5.6            | 100KHz, 1V | 0.188+0 | 0.95                | 0.98       | M,T       |
| SCDS2D14T-6R8 □ -N | 6.8            | 100KHz, 1V | 0.213+0 | 0.85                | 0.92       | M,T       |
| SCDS2D14T-8R2 □ -N | 8.2            | 100KHz, 1V | 0.281+0 | 0.8                 | 0.8        | M,T       |
| SCDS2D14T-100 □ -N | 10             | 100KHz, 1V | 0.294+0 | 0.7                 | 0.76       | M,T       |
| SCDS2D14T-120 □ -N | 12             | 100KHz, 1V | 0.394+0 | 0.62                | 0.64       | M,T       |

NOTE : □ -tolerance M=±20% / T=±30%  
1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)  
2.Rate current: Inductance drop = 35% typ.  
3.Irms:Δt=40°C  
"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                       | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ ) | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|--------------------------------------------|----------------------|------------|-----------------|---------------------|------------|-----------|
| SCDS2D18LD-2R2 <input type="checkbox"/> -N | 2.2                  | 100KHz, IV | 0.041+0         | 0.85                | 2.3        | M,T       |
| SCDS2D18LD-3R3 <input type="checkbox"/> -N | 3.3                  | 100KHz, IV | 0.054+0         | 0.75                | 2.1        | M,T       |
| SCDS2D18LD-4R7 <input type="checkbox"/> -N | 4.7                  | 100KHz, IV | 0.078+0         | 0.63                | 1.65       | M,T       |
| SCDS2D18LD-6R8 <input type="checkbox"/> -N | 6.8                  | 100KHz, IV | 0.106+0         | 0.52                | 1.32       | M,T       |
| SCDS2D18LD-100 <input type="checkbox"/> -N | 10                   | 100KHz, IV | 0.180+0         | 0.43                | 1          | M,T       |
| SCDS2D18LD-150 <input type="checkbox"/> -N | 15                   | 100KHz, IV | 0.220+0         | 0.35                | 0.8        | M,T       |
| SCDS2D18LD-220 <input type="checkbox"/> -N | 22                   | 100KHz, IV | 0.320+0         | 0.3                 | 0.68       | M,T       |
| SCDS2D18LD-330 <input type="checkbox"/> -N | 33                   | 100KHz, IV | 0.460+0         | 0.24                | 0.56       | M,T       |
| SCDS2D18LD-470 <input type="checkbox"/> -N | 47                   | 100KHz, IV | 0.660+0         | 0.2                 | 0.48       | M,T       |

NOTE : ☐ -tolerance M=±20% / T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: Inductance drop = 35% typ.

3. Irms:  $\Delta t=40^{\circ}\text{C}$

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                       | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ ) | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|--------------------------------------------|----------------------|------------|-----------------|---------------------|------------|-----------|
| SCDS2D18HP-1R7 <input type="checkbox"/> -N | 1.7                  | 100KHz, IV | 0.044+0         | 1.85                | 2.2        | M,T       |
| SCDS2D18HP-2R2 <input type="checkbox"/> -N | 2.2                  | 100KHz, IV | 0.060+0         | 1.6                 | 1.9        | M,T       |
| SCDS2D18HP-3R3 <input type="checkbox"/> -N | 3.3                  | 100KHz, IV | 0.086+0         | 1.45                | 1.55       | M,T       |
| SCDS2D18HP-4R7 <input type="checkbox"/> -N | 4.7                  | 100KHz, IV | 0.140+0         | 1.2                 | 1.2        | M,T       |
| SCDS2D18HP-6R3 <input type="checkbox"/> -N | 6.3                  | 100KHz, IV | 0.160+0         | 1.05                | 1.15       | M,T       |
| SCDS2D18HP-100 <input type="checkbox"/> -N | 10                   | 100KHz, IV | 0.245+0         | 0.85                | 0.9        | M,T       |
| SCDS2D18HP-150 <input type="checkbox"/> -N | 15                   | 100KHz, IV | 0.345+0         | 0.7                 | 0.64       | M,T       |

NOTE : ☐ -tolerance M=±20% / T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: Inductance drop = 35% typ.

3. Irms:  $\Delta t=40^{\circ}\text{C}$

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance(μH) | Test Freq  | RDC(Ω)Max  | Rated current(A)Max |
|--------------------|----------------|------------|------------|---------------------|
| SCDS3D12T-1R0 □ -N | 1              | 10KHz,0.1V | 0.0401±30% | 1.54                |
| SCDS3D12T-1R5 □ -N | 1.5            | 10KHz,0.1V | 0.0635±30% | 1.32                |
| SCDS3D12T-2R2 □ -N | 2.2            | 10KHz,0.1V | 0.0835±30% | 1.12                |
| SCDS3D12T-3R3 □ -N | 3.3            | 10KHz,0.1V | 0.122±30%  | 0.9                 |
| SCDS3D12T-4R7 □ -N | 4.7            | 10KHz,0.1V | 0.172±30%  | 0.72                |
| SCDS3D12T-5R6 □ -N | 5.6            | 10KHz,0.1V | 0.191±30%  | 0.66                |
| SCDS3D12T-6R8 □ -N | 6.8            | 10KHz,0.1V | 0.218±30%  | 0.6                 |
| SCDS3D12T-8R2 □ -N | 8.2            | 10KHz,0.1V | 0.255±30%  | 0.57                |
| SCDS3D12T-100 □ -N | 10             | 10KHz,0.1V | 0.408±30%  | 0.49                |
| SCDS3D12T-120 □ -N | 12             | 10KHz,0.1V | 0.462±30%  | 0.47                |
| SCDS3D12T-150 □ -N | 15             | 10KHz,0.1V | 0.502±30%  | 0.41                |
| SCDS3D12T-180 □ -N | 18             | 10KHz,0.1V | 0.573±30%  | 0.37                |
| SCDS3D12T-220 □ -N | 22             | 10KHz,0.1V | 0.801±30%  | 0.34                |
| SCDS3D12T-270 □ -N | 27             | 10KHz,0.1V | 1.207±30%  | 0.3                 |
| SCDS3D12T-330 □ -N | 33             | 10KHz,0.1V | 1.358±30%  | 0.28                |
| SCDS3D12T-390 □ -N | 39             | 10KHz,0.1V | 1.911±30%  | 0.23                |

NOTE : □ -tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                 | Inductance( $\mu$ H) | Test Freq   | RDC( $\Omega$ )Max | Rated current(A)Max |
|----------------------|----------------------|-------------|--------------------|---------------------|
| SCDS3D16T-1R5 □ -B-N | 1.5                  | 100KHz,0.1V | 0.052+0            | 1.55                |
| SCDS3D16T-2R2 □ -B-N | 2.2                  | 100KHz,0.1V | 0.072+0            | 1.2                 |
| SCDS3D16T-3R3 □ -B-N | 3.3                  | 100KHz,0.1V | 0.085+0            | 1.1                 |
| SCDS3D16T-4R7 □ -B-N | 4.7                  | 100KHz,0.1V | 0.105+0            | 0.9                 |
| SCDS3D16T-6R8 □ -B-N | 6.8                  | 100KHz,0.1V | 0.170+0            | 0.73                |
| SCDS3D16T-10 □ -B-N  | 10                   | 100KHz,0.1V | 0.210+0            | 0.55                |
| SCDS3D16T-15 □ -B-N  | 15                   | 100KHz,0.1V | 0.295+0            | 0.45                |
| SCDS3D16T-22 □ -B-N  | 22                   | 100KHz,0.1V | 0.430+0            | 0.4                 |
| SCDS3D16T-27 □ -B-N  | 27                   | 100KHz,0.1V | 0.620+0            | 0.62                |
| SCDS3D16T-33 □ -B-N  | 33                   | 100KHz,0.1V | 0.675+0            | 0.32                |
| SCDS3D16T-47 □ -B-N  | 47                   | 100KHz,0.1V | 1.240+0            | 0.26                |

NOTE : □ -tolerance T= $\pm$ 30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta$ T=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                        | Inductance(μH) | Test Freq   | RDC(Ω)Max | Rated current(A)Max |
|---------------------------------------------|----------------|-------------|-----------|---------------------|
| SCDS4D28T-1R0 <input type="checkbox"/> -B-N | 1              | 7.96MHz, 1V | 0.045+0   | 1.72                |
| SCDS4D28T-2R2 <input type="checkbox"/> -B-N | 2.2            | 7.96MHz, 1V | 0.075+0   | 1.32                |
| SCDS4D28T-2R7 <input type="checkbox"/> -B-N | 2.7            | 7.96MHz, 1V | 0.105+0   | 1.28                |
| SCDS4D28T-3R3 <input type="checkbox"/> -B-N | 3.3            | 7.96MHz, 1V | 0.110+0   | 1.04                |
| SCDS4D28T-3R9 <input type="checkbox"/> -B-N | 3.9            | 7.96MHz, 1V | 0.155+0   | 0.88                |
| SCDS4D28T-4R7 <input type="checkbox"/> -B-N | 4.7            | 7.96MHz, 1V | 0.162+0   | 0.84                |
| SCDS4D28T-5R6 <input type="checkbox"/> -B-N | 5.6            | 7.96MHz, 1V | 0.170+0   | 0.8                 |
| SCDS4D28T-6R8 <input type="checkbox"/> -B-N | 6.8            | 7.96MHz, 1V | 0.200+0   | 0.76                |
| SCDS4D28T-8R2 <input type="checkbox"/> -B-N | 8.2            | 7.96MHz, 1V | 0.245+0   | 0.68                |
| SCDS4D28T-100 <input type="checkbox"/> -B-N | 10             | 7.96MHz, 1V | 0.280+0   | 0.61                |
| SCDS4D28T-120 <input type="checkbox"/> -B-N | 12             | 7.96MHz, 1V | 0.320+0   | 0.56                |
| SCDS4D28T-150 <input type="checkbox"/> -B-N | 15             | 7.96MHz, 1V | 0.360+0   | 0.5                 |
| SCDS4D28T-180 <input type="checkbox"/> -B-N | 18             | 7.96MHz, 1V | 0.400+0   | 0.48                |
| SCDS4D28T-220 <input type="checkbox"/> -B-N | 22             | 7.96MHz, 1V | 0.480+0   | 0.41                |
| SCDS4D28T-270 <input type="checkbox"/> -B-N | 27             | 7.96MHz, 1V | 0.570+0   | 0.35                |
| SCDS4D28T-330 <input type="checkbox"/> -B-N | 33             | 7.96MHz, 1V | 0.694+0   | 0.32                |
| SCDS4D28T-390 <input type="checkbox"/> -B-N | 39             | 7.96MHz, 1V | 0.800+0   | 0.3                 |
| SCDS4D28T-470 <input type="checkbox"/> -B-N | 47             | 7.96MHz, 1V | 0.950+0   | 0.28                |
| SCDS4D28T-560 <input type="checkbox"/> -B-N | 56             | 7.96MHz, 1V | 1.080+0   | 0.26                |
| SCDS4D28T-680 <input type="checkbox"/> -B-N | 68             | 7.96MHz, 1V | 1.300+0   | 0.24                |

NOTE : ☐ -tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                 | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ )Max | Rated current(A)Max |
|----------------------|----------------------|------------|--------------------|---------------------|
| SCDS4D28T-1R2 □ -B-N | 1.2                  | 100KHz, IV | 0.0236+0           | 2.56                |
| SCDS4D28T-1R8 □ -B-N | 1.8                  | 100KHz, IV | 0.0275+0           | 2.2                 |
| SCDS4D28T-2R2 □ -B-N | 2.2                  | 100KHz, IV | 0.0313+0           | 2.04                |
| SCDS4D28T-2R7 □ -B-N | 2.7                  | 100KHz, IV | 0.0433+0           | 1.6                 |
| SCDS4D28T-3R3 □ -B-N | 3.3                  | 100KHz, IV | 0.0492+0           | 1.57                |
| SCDS4D28T-3R9 □ -B-N | 3.9                  | 100KHz, IV | 0.0648+0           | 1.44                |
| SCDS4D28T-4R7 □ -B-N | 4.7                  | 100KHz, IV | 0.0720+0           | 1.32                |
| SCDS4D28T-5R6 □ -B-N | 5.6                  | 100KHz, IV | 0.1009+0           | 1.17                |
| SCDS4D28T-6R8 □ -B-N | 6.8                  | 100KHz, IV | 0.1089+0           | 1.12                |
| SCDS4D28T-8R2 □ -B-N | 8.2                  | 100KHz, IV | 0.1175+0           | 1.04                |
| SCDS4D28T-100 □ -B-N | 10                   | 100KHz, IV | 0.1283+0           | 1                   |
| SCDS4D28T-120 □ -B-N | 12                   | 100KHz, IV | 0.1316+0           | 0.84                |
| SCDS4D28T-150 □ -B-N | 15                   | 100KHz, IV | 0.1490+0           | 0.76                |
| SCDS4D28T-180 □ -B-N | 18                   | 100KHz, IV | 0.1660+0           | 0.72                |
| SCDS4D28T-220 □ -B-N | 22                   | 100KHz, IV | 0.2350+0           | 0.7                 |
| SCDS4D28T-270 □ -B-N | 27                   | 100KHz, IV | 0.2610+0           | 0.58                |
| SCDS4D28T-330 □ -B-N | 33                   | 100KHz, IV | 0.3313+0           | 0.56                |
| SCDS4D28T-390 □ -B-N | 39                   | 100KHz, IV | 0.3837+0           | 0.5                 |
| SCDS4D28T-470 □ -B-N | 47                   | 100KHz, IV | 0.5870+0           | 0.48                |
| SCDS4D28T-560 □ -B-N | 56                   | 100KHz, IV | 0.6245+0           | 0.41                |
| SCDS4D28T-680 □ -B-N | 68                   | 100KHz, IV | 0.6990+0           | 0.35                |
| SCDS4D28T-820 □ -B-N | 82                   | 100KHz, IV | 0.9140+0           | 0.32                |
| SCDS4D28T-101 □ -B-N | 100                  | 100KHz, IV | 1.0200+0           | 0.29                |
| SCDS4D28T-121 □ -B-N | 120                  | 100KHz, IV | 1.2700+0           | 0.27                |
| SCDS4D28T-151 □ -B-N | 150                  | 100KHz, IV | 1.3500+0           | 0.24                |
| SCDS4D28T-181 □ -B-N | 180                  | 100KHz, IV | 1.5400+0           | 0.22                |

NOTE : □ -tolerance T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta T=40^{\circ}\text{C}$  lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                        | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | Rated current(A)Max |
|---------------------------------------------|----------------------|-----------|--------------------|---------------------|
| SCDS5D18T-2R7 <input type="checkbox"/> -B-N | 2.7                  | 10KHz, IV | 0.052+0            | 2.1                 |
| SCDS5D18T-4R1 <input type="checkbox"/> -B-N | 4.1                  | 10KHz, IV | 0.057+0            | 1.95                |
| SCDS5D18T-5R4 <input type="checkbox"/> -B-N | 5.4                  | 10KHz, IV | 0.076+0            | 1.6                 |
| SCDS5D18T-6R2 <input type="checkbox"/> -B-N | 6.2                  | 10KHz, IV | 0.096+0            | 1.4                 |
| SCDS5D18T-6R8 <input type="checkbox"/> -B-N | 6.8                  | 10KHz, IV | 0.100+0            | 1.35                |
| SCDS5D18T-8R9 <input type="checkbox"/> -B-N | 8.9                  | 10KHz, IV | 0.116+0            | 1.25                |
| SCDS5D18T-100 <input type="checkbox"/> -B-N | 10                   | 10KHz, IV | 0.124+0            | 1.2                 |
| SCDS5D18T-120 <input type="checkbox"/> -B-N | 12                   | 10KHz, IV | 0.153+0            | 1.1                 |
| SCDS5D18T-150 <input type="checkbox"/> -B-N | 15                   | 10KHz, IV | 0.196+0            | 0.97                |
| SCDS5D18T-180 <input type="checkbox"/> -B-N | 18                   | 10KHz, IV | 0.210+0            | 0.85                |
| SCDS5D18T-220 <input type="checkbox"/> -B-N | 22                   | 10KHz, IV | 0.290+0            | 0.8                 |
| SCDS5D18T-270 <input type="checkbox"/> -B-N | 27                   | 10KHz, IV | 0.330+0            | 0.75                |
| SCDS5D18T-330 <input type="checkbox"/> -B-N | 33                   | 10KHz, IV | 0.386+0            | 0.65                |
| SCDS5D18T-390 <input type="checkbox"/> -B-N | 39                   | 10KHz, IV | 0.520+0            | 0.57                |
| SCDS5D18T-470 <input type="checkbox"/> -B-N | 47                   | 10KHz, IV | 0.595+0            | 0.54                |
| SCDS5D18T-560 <input type="checkbox"/> -B-N | 56                   | 10KHz, IV | 0.665+0            | 0.5                 |
| SCDS5D18T-680 <input type="checkbox"/> -B-N | 68                   | 10KHz, IV | 0.840+0            | 0.43                |
| SCDS5D18T-820 <input type="checkbox"/> -B-N | 82                   | 10KHz, IV | 0.978+0            | 0.41                |
| SCDS5D18T-101 <input type="checkbox"/> -B-N | 100                  | 10KHz, IV | 1.200+0            | 0.36                |
| SCDS5D18T-121 <input type="checkbox"/> -B-N | 120                  | 10KHz, IV | 1.600+0            | 0.32                |
| SCDS5D18T-151 <input type="checkbox"/> -B-N | 150                  | 10KHz, IV | 1.800+0            | 0.3                 |

NOTE : ☐ -tolerance T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta T=40^\circ\text{C}$  lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                        | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | Rated current(A)Max |
|---------------------------------------------|----------------------|-----------|--------------------|---------------------|
| SCDS5D28T-2R5 <input type="checkbox"/> -B-N | 2.5                  | 10KHz,1V  | 0.018+0            | 2.6                 |
| SCDS5D28T-3R0 <input type="checkbox"/> -B-N | 3                    | 10KHz,1V  | 0.024+0            | 2.4                 |
| SCDS5D28T-4R2 <input type="checkbox"/> -B-N | 4.2                  | 10KHz,1V  | 0.031+0            | 2.2                 |
| SCDS5D28T-4R7 <input type="checkbox"/> -B-N | 4.7                  | 10KHz,1V  | 0.038+0            | 1.9                 |
| SCDS5D28T-5R3 <input type="checkbox"/> -B-N | 5.3                  | 10KHz,1V  | 0.038+0            | 1.9                 |
| SCDS5D28T-6R2 <input type="checkbox"/> -B-N | 6.2                  | 10KHz,1V  | 0.045+0            | 1.8                 |
| SCDS5D28T-6R8 <input type="checkbox"/> -B-N | 6.8                  | 10KHz,1V  | 0.050+0            | 1.65                |
| SCDS5D28T-8R2 <input type="checkbox"/> -B-N | 8.2                  | 10KHz,1V  | 0.053+0            | 1.6                 |
| SCDS5D28T-100 <input type="checkbox"/> -B-N | 10                   | 10KHz,1V  | 0.065+0            | 1.3                 |
| SCDS5D28T-120 <input type="checkbox"/> -B-N | 12                   | 10KHz,1V  | 0.076+0            | 1.2                 |
| SCDS5D28T-150 <input type="checkbox"/> -B-N | 15                   | 10KHz,1V  | 0.103+0            | 1.1                 |
| SCDS5D28T-180 <input type="checkbox"/> -B-N | 18                   | 10KHz,1V  | 0.110+0            | 1                   |
| SCDS5D28T-220 <input type="checkbox"/> -B-N | 22                   | 10KHz,1V  | 0.122+0            | 0.9                 |
| SCDS5D28T-270 <input type="checkbox"/> -B-N | 27                   | 10KHz,1V  | 0.175+0            | 0.85                |
| SCDS5D28T-330 <input type="checkbox"/> -B-N | 33                   | 10KHz,1V  | 0.189+0            | 0.75                |
| SCDS5D28T-390 <input type="checkbox"/> -B-N | 39                   | 10KHz,1V  | 0.212+0            | 0.7                 |
| SCDS5D28T-470 <input type="checkbox"/> -B-N | 47                   | 10KHz,1V  | 0.250+0            | 0.62                |
| SCDS5D28T-560 <input type="checkbox"/> -B-N | 56                   | 10KHz,1V  | 0.305+0            | 0.58                |
| SCDS5D28T-680 <input type="checkbox"/> -B-N | 68                   | 10KHz,1V  | 0.355+0            | 0.52                |
| SCDS5D28T-820 <input type="checkbox"/> -B-N | 82                   | 10KHz,1V  | 0.463+0            | 0.46                |
| SCDS5D28T-101 <input type="checkbox"/> -B-N | 100                  | 10KHz,1V  | 0.520+0            | 0.42                |

NOTE : ☐ -tolerance T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta T=40^\circ\text{C}$  lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                 | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ )Max | Rated current(A)Max |
|----------------------|----------------------|-----------|--------------------|---------------------|
| SCDS6D28T-3R0 □ -B-N | 3                    | 10KHz, 1V | 0.024+0            | 3                   |
| SCDS6D28T-3R9 □ -B-N | 3.9                  | 10KHz, 1V | 0.027+0            | 2.6                 |
| SCDS6D28T-4R7 □ -B-N | 4.7                  | 10KHz, 1V | 0.031+0            | 2.4                 |
| SCDS6D28T-5R0 □ -B-N | 5                    | 10KHz, 1V | 0.031+0            | 2.4                 |
| SCDS6D28T-5R6 □ -B-N | 5.6                  | 10KHz, 1V | 0.035+0            | 2.25                |
| SCDS6D28T-6R0 □ -B-N | 6                    | 10KHz, 1V | 0.035+0            | 2.25                |
| SCDS6D28T-6R8 □ -B-N | 6.8                  | 10KHz, 1V | 0.052+0            | 2.1                 |
| SCDS6D28T-7R3 □ -B-N | 7.3                  | 10KHz, 1V | 0.054+0            | 2.1                 |
| SCDS6D28T-8R6 □ -B-N | 8.6                  | 10KHz, 1V | 0.058+0            | 1.85                |
| SCDS6D28T-100 □ -B-N | 10                   | 10KHz, 1V | 0.065+0            | 1.7                 |
| SCDS6D28T-120 □ -B-N | 12                   | 10KHz, 1V | 0.070+0            | 1.55                |
| SCDS6D28T-150 □ -B-N | 15                   | 10KHz, 1V | 0.084+0            | 1.4                 |
| SCDS6D28T-180 □ -B-N | 18                   | 10KHz, 1V | 0.095+0            | 1.32                |
| SCDS6D28T-220 □ -B-N | 22                   | 10KHz, 1V | 0.128+0            | 1.2                 |
| SCDS6D28T-270 □ -B-N | 27                   | 10KHz, 1V | 0.142+0            | 1.05                |
| SCDS6D28T-330 □ -B-N | 33                   | 10KHz, 1V | 0.165+0            | 0.97                |
| SCDS6D28T-390 □ -B-N | 39                   | 10KHz, 1V | 0.210+0            | 0.86                |
| SCDS6D28T-470 □ -B-N | 47                   | 10KHz, 1V | 0.238+0            | 0.8                 |
| SCDS6D28T-560 □ -B-N | 56                   | 10KHz, 1V | 0.277+0            | 0.73                |
| SCDS6D28T-680 □ -B-N | 68                   | 10KHz, 1V | 0.304+0            | 0.65                |
| SCDS6D28T-820 □ -B-N | 82                   | 10KHz, 1V | 0.390+0            | 0.6                 |
| SCDS6D28T-101 □ -B-N | 100                  | 10KHz, 1V | 0.535+0            | 0.54                |

NOTE : □ -tolerance T=±30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta T=40^\circ\text{C}$  lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                 | Inductance( $\mu$ H) | Test Freq  | RDC( $\Omega$ )Max | Rated current(A)Max |
|----------------------|----------------------|------------|--------------------|---------------------|
| SCDS6D38T-3R3 □ -B-N | 3.3                  | 10KHz,0.1V | 0.020+0            | 3.5                 |
| SCDS6D38T-4R7 □ -B-N | 4.7                  | 10KHz,0.1V | 0.022+0            | 3.1                 |
| SCDS6D38T-5R0 □ -B-N | 5                    | 10KHz,0.1V | 0.024+0            | 2.9                 |
| SCDS6D38T-6R2 □ -B-N | 6.2                  | 10KHz,0.1V | 0.027+0            | 2.5                 |
| SCDS6D38T-6R8 □ -B-N | 6.8                  | 10KHz,0.1V | 0.029+0            | 2.4                 |
| SCDS6D38T-7R4 □ -B-N | 7.4                  | 10KHz,0.1V | 0.031+0            | 2.3                 |
| SCDS6D38T-8R7 □ -B-N | 8.7                  | 10KHz,0.1V | 0.034+0            | 2.2                 |
| SCDS6D38T-100 □ -B-N | 10                   | 10KHz,0.1V | 0.038+0            | 2                   |
| SCDS6D38T-120 □ -B-N | 12                   | 10KHz,0.1V | 0.053+0            | 1.7                 |
| SCDS6D38T-150 □ -B-N | 15                   | 10KHz,0.1V | 0.057+0            | 1.6                 |
| SCDS6D38T-180 □ -B-N | 18                   | 10KHz,0.1V | 0.092+0            | 1.5                 |
| SCDS6D38T-220 □ -B-N | 22                   | 10KHz,0.1V | 0.096+0            | 1.3                 |
| SCDS6D38T-270 □ -B-N | 27                   | 10KHz,0.1V | 0.109+0            | 1.2                 |
| SCDS6D38T-330 □ -B-N | 33                   | 10KHz,0.1V | 0.124+0            | 1.1                 |
| SCDS6D38T-390 □ -B-N | 39                   | 10KHz,0.1V | 0.138+0            | 1                   |
| SCDS6D38T-470 □ -B-N | 47                   | 10KHz,0.1V | 0.150+0            | 0.95                |
| SCDS6D38T-560 □ -B-N | 56                   | 10KHz,0.1V | 0.202+0            | 0.85                |
| SCDS6D38T-680 □ -B-N | 68                   | 10KHz,0.1V | 0.234+0            | 0.75                |
| SCDS6D38T-820 □ -B-N | 82                   | 10KHz,0.1V | 0.324+0            | 0.7                 |
| SCDS6D38T-101 □ -B-N | 100                  | 10KHz,0.1V | 0.358+0            | 0.65                |

NOTE : □ -tolerance T= $\pm$ 30%

1. Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2. Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising  $\Delta$  T=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## SCDS SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : $150^{\circ}\text{C}$ , 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : $260 \pm 5^{\circ}\text{C}$<br>Immersion Time : $10 \pm 1$ Sec.       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : $150^{\circ}\text{C}$ , 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : $230 \pm 5^{\circ}\text{C}$<br>Immersion Time : $4 \pm 1$ Sec.        |

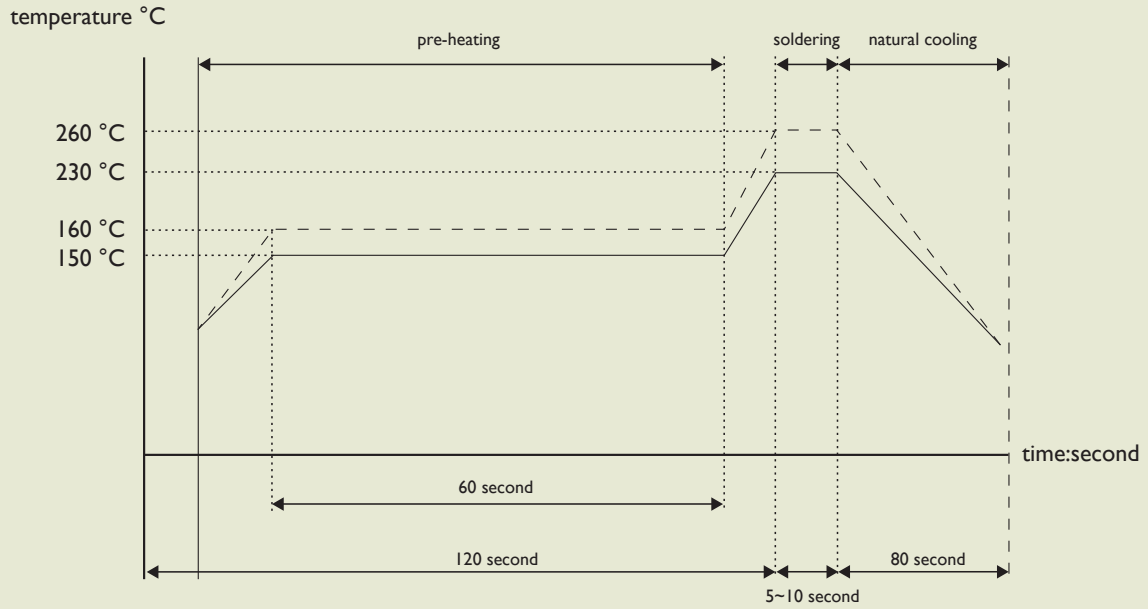
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                        | SPECIFICATION                                                                                            | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
|-------|-----------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-------------|---|---------|----|---|--------|---|---|--------|----|---|--------|---|
| I-2-1 | Temperature Shock           | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to -125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                         |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-2 | Temperature Cycle           |                                                                                                          | One Cycle <table><tr><th>Step</th><th>Temperature (°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-25 ± 3</td><td>30</td></tr><tr><td>2</td><td>25 ± 2</td><td>3</td></tr><tr><td>3</td><td>85 ± 3</td><td>30</td></tr><tr><td>4</td><td>25 ± 2</td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature (°C) | Time (Min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 3 | 3 | 85 ± 3 | 30 | 4 | 25 ± 2 | 3 |
| Step  | Temperature (°C)            | Time (Min.)                                                                                              |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 1     | -25 ± 3                     | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 2     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 3     | 85 ± 3                      | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 4     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-3 | Humidity Resistance         |                                                                                                          | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-4 | High Temperature Resistance |                                                                                                          | Temperature : 85 ± 3°C<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                            |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-5 | Low Temperature Resistance  |                                                                                                          | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                               |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |



## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors

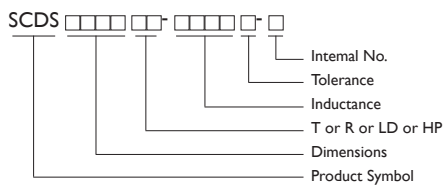


# SMD Shielded Power Inductors

# SCDS Series

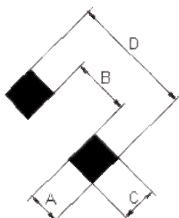
High Energy Storage & Lower Power Losses

## PRODUCT IDENTIFICATION

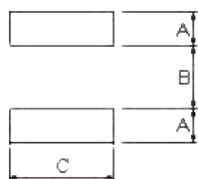


- T :Packaging:Tape and Reel
- R:Core style (Round)
- HP:Low DCR
- LD:High Power
- Tolerance:K=±10%, M=±20%, T=±30%
- Internal No.:B:Silver plated terminals(3D12~6D38);S:Base type terminals(2D09~2D18HP&62T~127)
- Note:YAGEO has already released lead-free inductors of SCDS series,and Internal No. will be added a "N" as identification.

## RECOMMENDED PATTERN



| A   | B   | C   | D   |
|-----|-----|-----|-----|
| 1.3 | 1.7 | 1.3 | 4.3 |



| A | B   | C  |
|---|-----|----|
| 4 | 3.5 | 11 |

## APPLICATIONS

Power supply for VTRs.

OA equipment.

LCD televisions.

Notebook PCs.

Portable communication equipment.

DC/DC converters,etc.

Operating temperature:-30°C ~100°C (For 2D09/ 4D18C); -40°C ~85°C (For 1014R/ 105R)

## FEATURES

Available in magnetically shielded

Low DC resistance

Suitable for large currents.

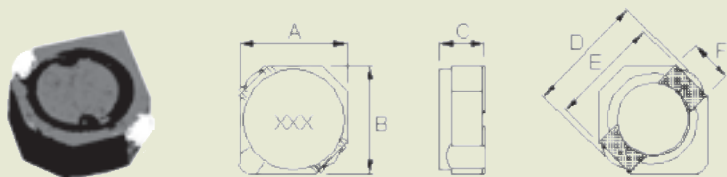
Ideal for a variety of DC-DC converter inductor applications.

Available on tape and reel for auto surface mounting.

## SHAPES AND DIMENSIONS

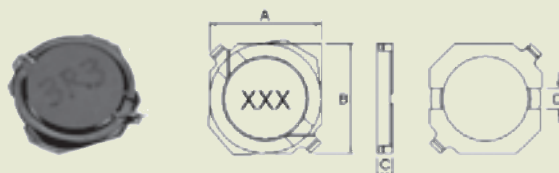
Dimensions : mm

### SCDS 2D09



| A                 | B                 | C                 | D   | E   | F   |
|-------------------|-------------------|-------------------|-----|-----|-----|
| 3.2 <sup>+0</sup> | 3.2 <sup>+0</sup> | 1.0 <sup>+0</sup> | 3.3 | 2.1 | 1.0 |

### SCDS 1014R

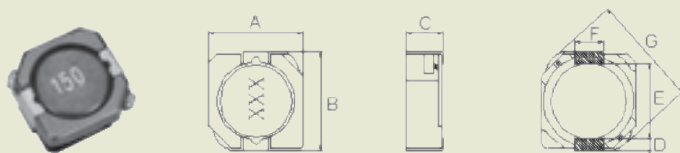


| A      | B      | C       | D       |
|--------|--------|---------|---------|
| 10±0.3 | 10±0.3 | 1.4±0.3 | 2.8 TYP |



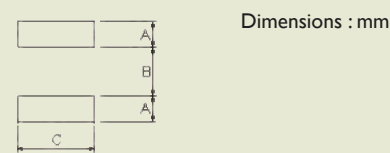
## SHAPES AND DIMENSIONS

SCDS 105R



| A                  | B                  | C                 | D   | E   | F   | G                  |
|--------------------|--------------------|-------------------|-----|-----|-----|--------------------|
| 10.3 <sup>+0</sup> | 10.5 <sup>+0</sup> | 5.1 <sup>+0</sup> | 1.2 | 7.7 | 3.0 | 13.5 <sup>+0</sup> |

## RECOMMENDED PATTERN



| A   | B   | C   |
|-----|-----|-----|
| 1.6 | 7.3 | 3.2 |

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq(KHz) | D.C.R(m $\Omega$ )Max | Rated Current(A)Max |
|-------------------|----------------------|----------------|-----------------------|---------------------|
| SCDS2D09T -1R2T-S | 1.2                  | 100/IV         | 97.5                  | 0.80                |
| SCDS2D09T -1R5T-S | 1.5                  | 100/IV         | 110.0                 | 0.73                |
| SCDS2D09T -1R8T-S | 1.8                  | 100/IV         | 131.3                 | 0.65                |
| SCDS2D09T -2R2T-S | 2.2                  | 100/IV         | 143.8                 | 0.60                |
| SCDS2D09T -2R7T-S | 2.7                  | 100/IV         | 150.0                 | 0.53                |
| SCDS2D09T -3R3T-S | 3.3                  | 100/IV         | 193.8                 | 0.47                |
| SCDS2D09T -3R9T-S | 3.9                  | 100/IV         | 225.0                 | 0.45                |
| SCDS2D09T -4R7T-S | 4.7                  | 100/IV         | 287.5                 | 0.41                |
| SCDS2D09T -5R6T-S | 5.6                  | 100/IV         | 325.0                 | 0.37                |
| SCDS2D09T -6R8T-S | 6.8                  | 100/IV         | 425.0                 | 0.33                |
| SCDS2D09T -8R2T-S | 8.2                  | 100/IV         | 475.0                 | 0.30                |
| SCDS2D09T -100T-S | 10                   | 100/IV         | 537.5                 | 0.28                |

• Inductance range 1.2 $\mu$ H to 10 $\mu$ H

• Tolerance : T= $\pm$ 30%

• Rated current: The rate current indicates the current when the inductance decreases to 65% over of it's nominal value or D.C.current when the temperature rising  $\Delta t = 40^{\circ}\text{C}$  lower; whichever is lower.

• Test instrument : L : hp4284A ; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A or CH1061+CH301A

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                       | Inductance( $\mu$ H) | Test Freq | RDC( $\Omega$ ) | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|--------------------------------------------|----------------------|-----------|-----------------|---------------------|------------|-----------|
| SCDS2D09T -1R2 <input type="checkbox"/> -N | 1.2                  | 100KHz/IV | 0.0975+0        | 0.8                 | 1.24       | T         |
| SCDS2D09T -1R5 <input type="checkbox"/> -N | 1.5                  | 100KHz/IV | 0.1100+0        | 0.73                | 1.15       | T         |
| SCDS2D09T -1R8 <input type="checkbox"/> -N | 1.8                  | 100KHz/IV | 0.1313+0        | 0.65                | 1.06       | T         |
| SCDS2D09T -2R2 <input type="checkbox"/> -N | 2.2                  | 100KHz/IV | 0.1438+0        | 0.6                 | 1.05       | T         |
| SCDS2D09T -2R7 <input type="checkbox"/> -N | 2.7                  | 100KHz/IV | 0.1500+0        | 0.53                | 0.98       | T         |
| SCDS2D09T -3R3 <input type="checkbox"/> -N | 3.3                  | 100KHz/IV | 0.1938+0        | 0.47                | 0.84       | T         |
| SCDS2D09T -3R9 <input type="checkbox"/> -N | 3.9                  | 100KHz/IV | 0.2250+0        | 0.45                | 0.72       | T         |
| SCDS2D09T -4R7 <input type="checkbox"/> -N | 4.7                  | 100KHz/IV | 0.2875+0        | 0.41                | 0.64       | T         |
| SCDS2D09T -5R6 <input type="checkbox"/> -N | 5.6                  | 100KHz/IV | 0.3250+0        | 0.37                | 0.59       | T         |
| SCDS2D09T -6R8 <input type="checkbox"/> -N | 6.8                  | 100KHz/IV | 0.4250+0        | 0.33                | 0.53       | T         |
| SCDS2D09T -8R2 <input type="checkbox"/> -N | 8.2                  | 100KHz/IV | 0.4750+0        | 0.3                 | 0.46       | T         |
| SCDS2D09T -100 <input type="checkbox"/> -N | 10                   | 100KHz/IV | 0.5375+0        | 0.28                | 0.42       | M,T       |
| SCDS2D09T -220 <input type="checkbox"/> -N | 22                   | 100KHz/IV | 1.5000+0        | 0.2                 | -          | M,T       |

NOTE : ☐ -tolerance M= $\pm$ 20% / T= $\pm$ 30%

1. Operating temperature range  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$  (Includes temperature when the coil is heated)

2. Rate current: Inductance drop = 35% typ.

3. Irms:  $\Delta t = 40^{\circ}\text{C}$

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE              | Inductance( $\mu$ H) | Test Freq(KHz) | D.C.R(m $\Omega$ )Max | Rated Current(A)Max |
|-------------------|----------------------|----------------|-----------------------|---------------------|
| SCDS1014R-100M -S | 10                   | 100/1V         | 0.17                  | 1.8                 |
| SCDS1014R-150M -S | 15                   | 100/1V         | 0.24                  | 1.4                 |
| SCDS1014R-220M -S | 22                   | 100/1V         | 0.33                  | 1.2                 |
| SCDS1014R-330M -S | 33                   | 100/1V         | 0.50                  | 0.9                 |

- Inductance range 10uH to 33uH
- Tolerance : M=±20%
- 2.Rate current: Inductance drop = 35% typ.
- Test instrument : L :hp192A or HP4263B. RDC : CHEN HWA 502BC Rated current : CH1061+301A

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

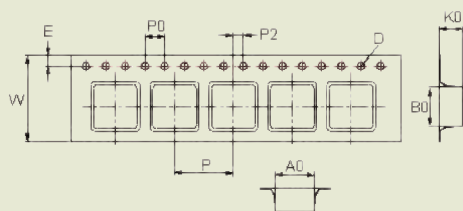
| TYPE             | Inductance( $\mu$ H) | Test Freq(KHz) | D.C.R(m $\Omega$ )Max | Rated Current(A)Max |
|------------------|----------------------|----------------|-----------------------|---------------------|
| SCDS105R -R80T-S | 0.8                  | 100/1V         | 4.3                   | 9.50                |
| SCDS105R -1R5T-S | 1.5                  | 100/1V         | 5.8                   | 8.30                |
| SCDS105R -2R2T-S | 2.2                  | 100/1V         | 7.2                   | 7.50                |
| SCDS105R -3R3T-S | 3.3                  | 100/1V         | 10.4                  | 6.50                |
| SCDS105R -4R7T-S | 4.7                  | 100/1V         | 12.3                  | 6.10                |
| SCDS105R -6R8T-S | 6.8                  | 100/1V         | 18                    | 5.40                |
| SCDS105R -8R2T-S | 8.2                  | 100/1V         | 20                    | 5.00                |
| SCDS105R -100T-S | 10                   | 100/1V         | 26                    | 4.50                |
| SCDS105R -120T-S | 12                   | 100/1V         | 33                    | 3.80                |
| SCDS105R -150T-S | 15                   | 100/1V         | 41                    | 3.40                |
| SCDS105R -180T-S | 18                   | 100/1V         | 46                    | 3.10                |
| SCDS105R -220T-S | 22                   | 100/1V         | 61                    | 2.90                |
| SCDS105R -270T-S | 27                   | 100/1V         | 69                    | 2.60                |
| SCDS105R -330T-S | 33                   | 100/1V         | 84                    | 2.50                |
| SCDS105R -390T-S | 39                   | 100/1V         | 106                   | 2.25                |
| SCDS105R -470T-S | 47                   | 100/1V         | 130                   | 2.00                |
| SCDS105R -560T-S | 56                   | 100/1V         | 149                   | 1.90                |
| SCDS105R -680T-S | 68                   | 100/1V         | 201                   | 1.60                |
| SCDS105R -820T-S | 82                   | 100/1V         | 227                   | 1.45                |
| SCDS105R -101T-S | 100                  | 100/1V         | 253                   | 1.35                |
| SCDS105R -121T-S | 120                  | 100/1V         | 303                   | 1.18                |
| SCDS105R -151T-S | 150                  | 100/1V         | 370                   | 1.10                |
| SCDS105R -181T-S | 180                  | 100/1V         | 419                   | 1.00                |
| SCDS105R -221T-S | 220                  | 100/1V         | 500                   | 0.94                |
| SCDS105R -271T-S | 270                  | 100/1V         | 672                   | 0.80                |
| SCDS105R -331T-S | 330                  | 100/1V         | 812                   | 0.73                |
| SCDS105R -391T-S | 390                  | 100/1V         | 953                   | 0.70                |
| SCDS105R -471T-S | 470                  | 100/1V         | 1289                  | 0.54                |
| SCDS105R -561T-S | 560                  | 100/1V         | 1430                  | 0.52                |
| SCDS105R -681T-S | 680                  | 100/1V         | 1599                  | 0.51                |
| SCDS105R -821T-S | 820                  | 100/1V         | 1768                  | 0.48                |
| SCDS105R -102T-S | 1000                 | 100/1V         | 1989                  | 0.42                |

- Inductance range 0.8uH to 10000uH
- Tolerance : T=±30%
- 2.Rate current: Inductance drop = 10% typ.
- Test instrument : L :hp192A or HP4263B; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A

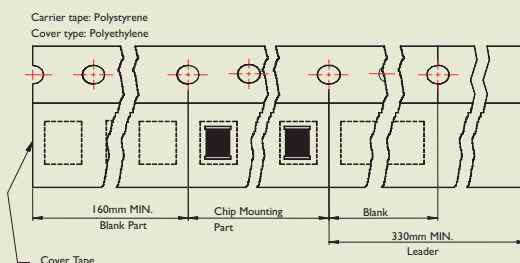


## PACKAGING SPECIFICATIONS

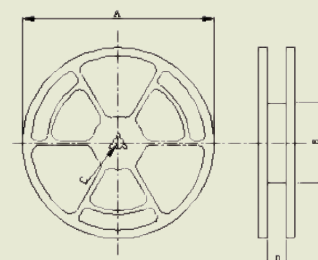
### Tape Dimensions



### Tape Material



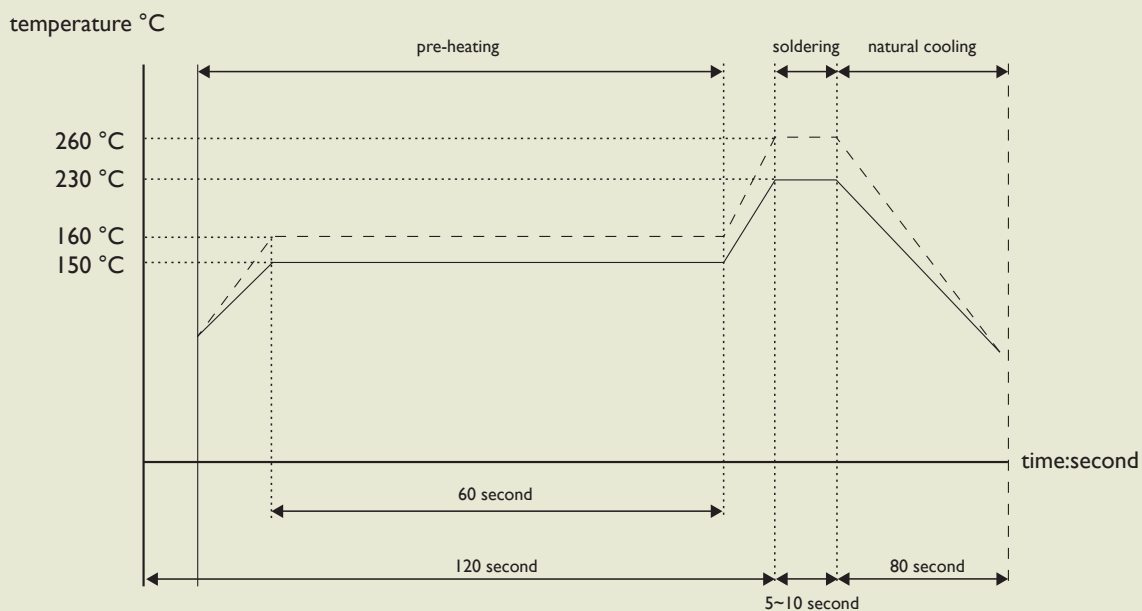
### Reel Dimensions



| TYPE       | TAPE DIMENSIONS |      |     |     |      |    |    |    |    | REEL DIMENSIONS |     |    |      | QUANTITY<br>PCS/REEL |
|------------|-----------------|------|-----|-----|------|----|----|----|----|-----------------|-----|----|------|----------------------|
|            | A0              | B0   | K0  | D   | E    | E  | P  | P0 | P2 | A               | B   | C  | D    |                      |
| SCDS 1014R | 10.5            | 10.5 | 1.9 | 1.5 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 1000                 |
| SCDS 105R  | 10.5            | 10.5 | 5.1 | 1.5 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500                  |
| SCDS 2D09  | 3.3             | 3.3  | 1.3 | 1.5 | 1.75 | 12 | 8  | 4  | 2  | 178             | 60  | 13 | 13.2 | 1500                 |

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder

for: lead-free solder

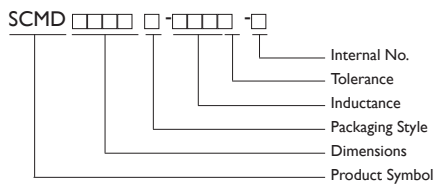
## SMD Unshielded Power Inductors

# SCMD Series

Low DC Resistance & For Large Current Applications



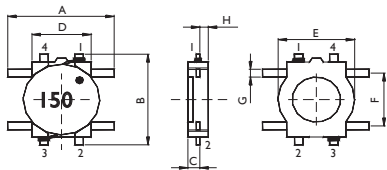
### PRODUCT IDENTIFICATION



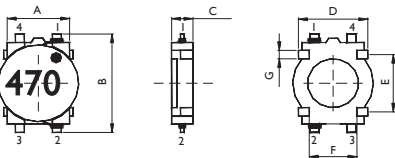
- Packaging: T: Tape and Reel
- Tolerance: M $\pm$ 20%
- Note: YAGEO will start to release SCMD Series inductors with lead-free terminals that meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No. will be changed to "N" as identification. Ex.: SCMD4D06T-2R2 M-N

### SHAPES AND DIMENSIONS

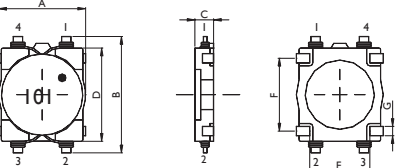
SCMD 4D06 & 4D08



SCMD 4D11 & 4D13



SCMD 5D11 & 5D13



### FEATURES

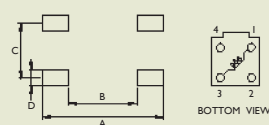
- Available in magnetically shielded.
- Low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC - Dc converter inductor applications.
- Available on tape and reel for auto surface mounting

### APPLICATIONS

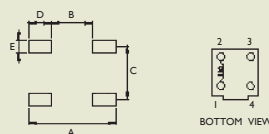
- power supply for VTRs.
- OA equipment.
- LCD televisions.
- Notebook PCs.
- Portable communication equipment.
- DC / DC converters, etc.

### RECOMENDED PATTERN

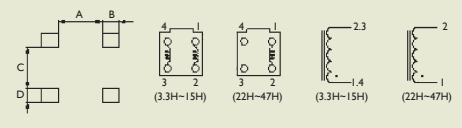
SCMD 4D06 & 4D08



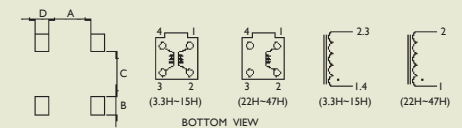
SCMD 4D11 & 4D13



SCMD 5D11



SCMD 5D13



### SHAPES AND DIMENSIONS

| TYPE     | A<br>Max | B<br>Max | C<br>Max | D   | E   | F   | G   | H   |
|----------|----------|----------|----------|-----|-----|-----|-----|-----|
| SCMD4D06 | 6.3      | 5.8      | 0.8      | 3.5 | 4.1 | 3.2 | 0.5 | 0.4 |
| SCMD4D08 | 6.3      | 5.8      | 1.0      | 3.5 | 4.1 | 3.2 | 0.5 | 0.4 |
| SCMD4D11 | 4.4      | 5.8      | 1.25     | 3.7 | 3.2 | 2.9 | 0.5 |     |
| SCMD4D13 | 4.4      | 5.8      | 1.45     | 3.7 | 3.2 | 2.9 | 0.5 |     |
| SCMD5D11 | 5.8      | 7.4      | 1.2      | 6.0 | 4.2 | 4.5 | 0.6 |     |
| SCMD5D13 | 5.8      | 7.4      | 1.5      | 6.0 | 4.2 | 4.5 | 0.6 |     |

### RECOMENDED PATTERN

| TYPE     | A   | B   | C   | D   | E   |
|----------|-----|-----|-----|-----|-----|
| SCMD4D06 | 7   | 4   | 3.2 | 0.9 |     |
| SCMD4D08 | 7   | 4   | 3.2 | 0.9 |     |
| SCMD4D11 | 5.3 | 2.5 | 3.2 | 1.4 | 0.8 |
| SCMD4D13 | 5.3 | 2.5 | 3.2 | 1.4 | 0.8 |
| SCMD5D11 | 3.6 | 1.4 | 3.4 | 1.1 |     |
| SCMD5D13 | 3.6 | 1.4 | 3.6 | 1.1 |     |



## STANDARD SPECIFICATIONS

| Stamp | Inductance<br>( $\mu$ H) | D.C.R( $\Omega$ ) Max. |              |              |              |              |              | Rated D.C. Current(A) |              |              |              |              |              |
|-------|--------------------------|------------------------|--------------|--------------|--------------|--------------|--------------|-----------------------|--------------|--------------|--------------|--------------|--------------|
|       |                          | SCMD<br>4D06           | SCMD<br>4D08 | SCMD<br>4D11 | SCMD<br>4D13 | SCMD<br>5D11 | SCMD<br>5D13 | SCMD<br>4D06          | SCMD<br>4D08 | SCMD<br>4D11 | SCMD<br>4D13 | SCMD<br>5D11 | SCMD<br>5D13 |
| 2R2   | 2.2                      | 0.116                  |              | 0.116        |              |              |              | 0.95                  |              | 0.95         |              |              |              |
| 3R3   | 3.3                      | 0.174                  | 0.160        | 0.174        | 0.160        | 0.109        | 0.081        | 0.77                  | 0.85         | 0.77         | 0.85         | 0.94         | 1.25         |
| 4R7   | 4.7                      | 0.216                  | 0.194        | 0.216        | 0.194        | 0.156        | 0.106        | 0.75                  | 0.80         | 0.75         | 0.80         | 0.80         | 1.20         |
| 6R8   | 6.8                      | 0.296                  | 0.276        | 0.296        | 0.276        | 0.216        | 0.144        | 0.62                  | 0.65         | 0.62         | 0.65         | 0.65         | 0.90         |
| 100   | 10                       | 0.457                  | 0.335        | 0.457        | 0.335        | 0.275        | 0.187        | 0.50                  | 0.57         | 0.50         | 0.57         | 0.54         | 0.85         |
| 150   | 15                       | 0.676                  | 0.508        | 0.676        | 0.508        | 0.438        | 0.300        | 0.40                  | 0.45         | 0.40         | 0.45         | 0.40         | 0.57         |
| 220   | 22                       | 1.066                  | 0.766        | 1.066        | 0.766        | 0.663        | 0.431        | 0.30                  | 0.37         | 0.30         | 0.37         | 0.36         | 0.54         |
| 330   | 33                       | 1.647                  | 1.162        | 1.647        | 1.162        | 0.975        | 0.637        | 0.24                  | 0.28         | 0.24         | 0.28         | 0.32         | 0.28         |
| 470   | 47                       | 2.843                  | 1.658        | 2.843        | 1.658        | 1.38         | 0.875        | 0.18                  | 0.22         | 0.18         | 0.22         | 0.26         | 0.35         |
| 680   | 68                       |                        | 2.534        |              | 2.534        | 1.70         |              |                       | 0.18         |              | 0.18         | 0.23         |              |
| 101   | 100                      |                        | 3.800        |              | 3.800        | 2.80         |              |                       | 0.17         |              | 0.17         | 0.20         |              |
| 151   | 150                      |                        |              |              | 5.362        |              |              |                       |              |              | 0.13         |              |              |

• Measuring Frequency (L) : 100KHz

• Tolerance of Inductance:  $\pm 20\%$ (M)

• Rated D.C Current (SCMD4D06/4D08/4D11/4D13/5D11)

This indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition or D.C current when at  $\Delta t=40^{\circ}\text{C}$  whichever is lower.

• Rated D.C Current (SCMD5D13)

This indicates the value of current when the inductance is 65% more than its nominal value and the temperature is rising at  $\Delta t=40^{\circ}\text{C}$  lower at D.C superposition.

• Test Equipment:

L: HP4192, LF Impedance Analyzer or HP4284A.

DCR: CHEN HWA 502

Rated dc Current: HP4284A+HP42841A

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                      | Inductance( $\mu$ H) | Test Freq(KHz) | RDC(m $\Omega$ )Max | Rated Current(A)Max |
|-------------------------------------------|----------------------|----------------|---------------------|---------------------|
| SCMD4D06T-2R2 <input type="checkbox"/> -N | 2.2                  | 100KHz, 1V     | 0.116               | 0.95                |
| SCMD4D06T-3R3 <input type="checkbox"/> -N | 3.3                  | 100KHz, 1V     | 0.174               | 0.77                |
| SCMD4D06T-4R7 <input type="checkbox"/> -N | 4.7                  | 100KHz, 1V     | 0.216               | 0.75                |
| SCMD4D06T-6R8 <input type="checkbox"/> -N | 6.8                  | 100KHz, 1V     | 0.296               | 0.62                |
| SCMD4D06T-100 <input type="checkbox"/> -N | 10                   | 100KHz, 1V     | 0.457               | 0.5                 |
| SCMD4D06T-150 <input type="checkbox"/> -N | 15                   | 100KHz, 1V     | 0.676               | 0.4                 |
| SCMD4D06T-220 <input type="checkbox"/> -N | 22                   | 100KHz, 1V     | 1.066               | 0.3                 |
| SCMD4D06T-330 <input type="checkbox"/> -N | 33                   | 100KHz, 1V     | 1.647               | 0.24                |
| SCMD4D06T-470 <input type="checkbox"/> -N | 47                   | 100KHz, 1V     | 2.843               | 0.18                |



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE               | Inductance( $\mu$ H) | Test Freq(KHz) | RDC(m $\Omega$ )Max | Rated Current(A)Max |
|--------------------|----------------------|----------------|---------------------|---------------------|
| SCMD4D08T-3R3 □ -N | 3.3                  | 100KHz, IV     | 0.16                | 0.85                |
| SCMD4D08T-4R7 □ -N | 4.7                  | 100KHz, IV     | 0.194               | 0.8                 |
| SCMD4D08T-6R8 □ -N | 6.8                  | 100KHz, IV     | 0.276               | 0.65                |
| SCMD4D08T-100 □ -N | 10                   | 100KHz, IV     | 0.335               | 0.57                |
| SCMD4D08T-150 □ -N | 15                   | 100KHz, IV     | 0.508               | 0.45                |
| SCMD4D08T-220 □ -N | 22                   | 100KHz, IV     | 0.766               | 0.37                |
| SCMD4D08T-330 □ -N | 33                   | 100KHz, IV     | 1.162               | 0.28                |
| SCMD4D08T-470 □ -N | 47                   | 100KHz, IV     | 1.658               | 0.22                |
| SCMD4D08T-680 □ -N | 68                   | 100KHz, IV     | 2.534               | 0.18                |
| SCMD4D08T-101 □ -N | 100                  | 100KHz, IV     | 3.8                 | 0.17                |
| SCMD4D11T-2R2 □ -N | 2.2                  | 100KHz, IV     | 0.116               | 0.95                |
| SCMD4D11T-3R3 □ -N | 3.3                  | 100KHz, IV     | 0.174               | 0.77                |
| SCMD4D11T-4R7 □ -N | 4.7                  | 100KHz, IV     | 0.216               | 0.75                |
| SCMD4D11T-6R8 □ -N | 6.8                  | 100KHz, IV     | 0.296               | 0.62                |
| SCMD4D11T-100 □ -N | 10                   | 100KHz, IV     | 0.457               | 0.5                 |
| SCMD4D11T-150 □ -N | 15                   | 100KHz, IV     | 0.676               | 0.4                 |
| SCMD4D11T-220 □ -N | 22                   | 100KHz, IV     | 1.066               | 0.3                 |
| SCMD4D11T-330 □ -N | 33                   | 100KHz, IV     | 1.647               | 0.24                |
| SCMD4D11T-470 □ -N | 47                   | 100KHz, IV     | 2.843               | 0.18                |
| SCMD4D13T-3R3 □ -N | 3.3                  | 100KHz, IV     | 0.16                | 0.85                |
| SCMD4D13T-4R7 □ -N | 4.7                  | 100KHz, IV     | 0.194               | 0.8                 |
| SCMD4D13T-6R8 □ -N | 6.8                  | 100KHz, IV     | 0.276               | 0.65                |
| SCMD4D13T-100 □ -N | 10                   | 100KHz, IV     | 0.335               | 0.57                |
| SCMD4D13T-150 □ -N | 15                   | 100KHz, IV     | 0.508               | 0.45                |
| SCMD4D13T-220 □ -N | 22                   | 100KHz, IV     | 0.766               | 0.37                |
| SCMD4D13T-330 □ -N | 33                   | 100KHz, IV     | 1.162               | 0.28                |
| SCMD4D13T-470 □ -N | 47                   | 100KHz, IV     | 1.658               | 0.22                |
| SCMD4D13T-680 □ -N | 68                   | 100KHz, IV     | 2.534               | 0.18                |
| SCMD4D13T-101 □ -N | 100                  | 100KHz, IV     | 3.8                 | 0.17                |
| SCMD4D13T-151 □ -N | 150                  | 100KHz, IV     | 5.362               | 0.13                |
| SCMD5D11T-3R3 □ -N | 3.3                  | 100KHz, IV     | 0.109               | 0.94                |
| SCMD5D11T-4R7 □ -N | 4.7                  | 100KHz, IV     | 0.156               | 0.8                 |
| SCMD5D11T-6R8 □ -N | 6.8                  | 100KHz, IV     | 0.216               | 0.65                |
| SCMD5D11T-100 □ -N | 10                   | 100KHz, IV     | 0.275               | 0.54                |
| SCMD5D11T-150 □ -N | 15                   | 100KHz, IV     | 0.438               | 0.4                 |
| SCMD5D11T-220 □ -N | 22                   | 100KHz, IV     | 0.663               | 0.36                |
| SCMD5D11T-330 □ -N | 33                   | 100KHz, IV     | 0.975               | 0.32                |
| SCMD5D11T-470 □ -N | 47                   | 100KHz, IV     | 1.38                | 0.26                |
| SCMD5D11T-680 □ -N | 68                   | 100KHz, IV     | 1.7                 | 0.23                |
| SCMD5D11T-101 □ -N | 100                  | 100KHz, IV     | 2.8                 | 0.2                 |
| SCMD5D13T-3R3 □ -N | 3.3                  | 100KHz, IV     | 0.081               | 1.25                |
| SCMD5D13T-4R7 □ -N | 4.7                  | 100KHz, IV     | 0.106               | 1.2                 |
| SCMD5D13T-6R8 □ -N | 6.8                  | 100KHz, IV     | 0.144               | 0.9                 |
| SCMD5D13T-100 □ -N | 10                   | 100KHz, IV     | 0.187               | 0.85                |
| SCMD5D13T-150 □ -N | 15                   | 100KHz, IV     | 0.3                 | 0.57                |
| SCMD5D13T-220 □ -N | 22                   | 100KHz, IV     | 0.431               | 0.54                |
| SCMD5D13T-330 □ -N | 33                   | 100KHz, IV     | 0.637               | 0.38                |
| SCMD5D13T-470 □ -N | 47                   | 100KHz, IV     | 0.875               | 0.35                |

NOTE : □ -tolerance M=±20%

1. Operating temperature range -30°C~100°C

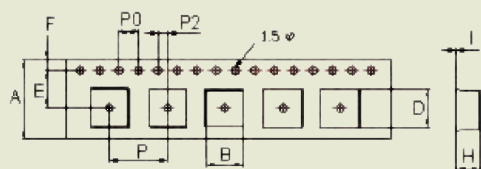
2. Rate current: Inductance drop = 10% typ.

3. This indicates the value of current when the inductance is 10% lower than its initial value at D.C superimposition or D.C current when at  $\Delta t=40^\circ\text{C}$  whichever is lower

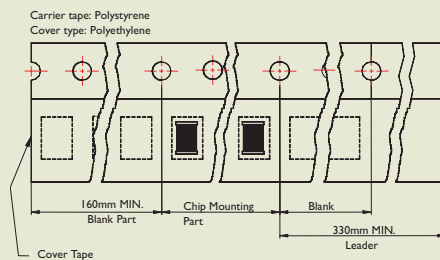


## PACKAGING SPECIFICATIONS

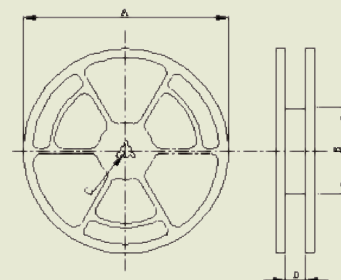
### Tape Dimensions



### Tape Material



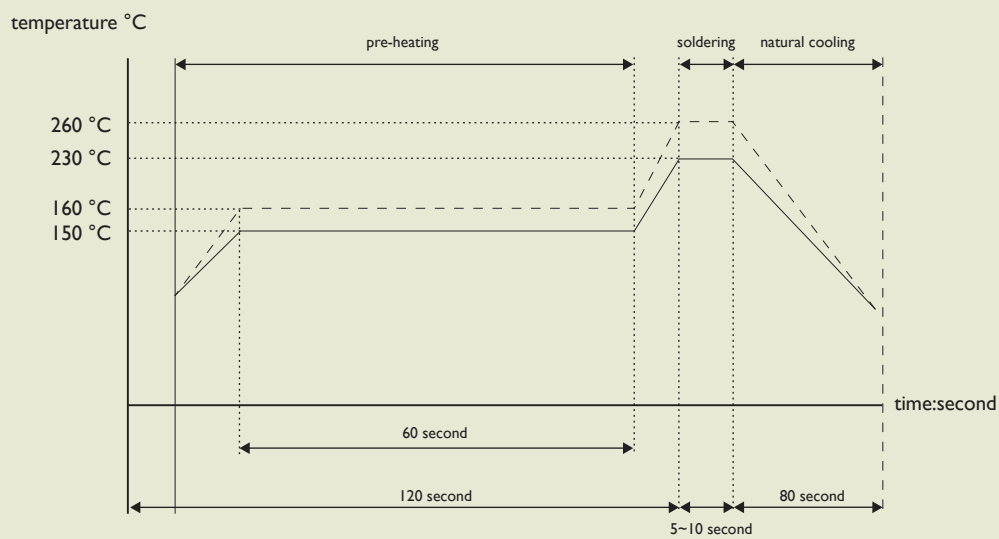
### Reel Dimensions



| TYPE     | TAPE DIMENSIONS |     |      |     |      |     |     |   |    |    | REEL DIMENSIONS |     |    |      | QUANTITY<br>PCS/REEL |
|----------|-----------------|-----|------|-----|------|-----|-----|---|----|----|-----------------|-----|----|------|----------------------|
|          | A               | B   | D    | E   | F    | H   | I   | P | P0 | P2 | A               | B   | C  | D    |                      |
| SCMD4D06 | 12              | 6   | 7    | 5.5 | 1.75 | 1.5 | 0.4 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |
| SCMD4D08 | 12              | 6   | 7    | 5.5 | 1.75 | 1.7 | 0.4 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |
| SCMD4D11 | 12              | 4.4 | 5.55 | 5.5 | 1.75 | 1.4 | 0.3 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |
| SCMD4D13 | 12              | 4.4 | 5.55 | 5.5 | 1.75 | 1.4 | 0.3 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |
| SCMD5D11 | 16              | 5.9 | 7.5  | 7.5 | 1.75 | 1.5 | 0.4 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |
| SCMD5D13 | 16              | 5.9 | 7.5  | 7.5 | 1.75 | 1.8 | 0.4 | 8 | 4  | 2  | 330             | 100 | 13 | 13.4 | 1000                 |

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder ————  
for: lead-free solder .....

## SMD Power Inductors

## SDS0402 Series

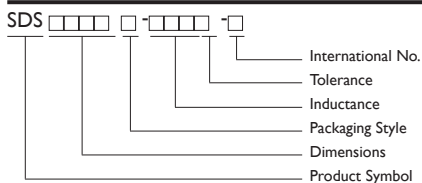


## FEATURES

Smallest size and high performance

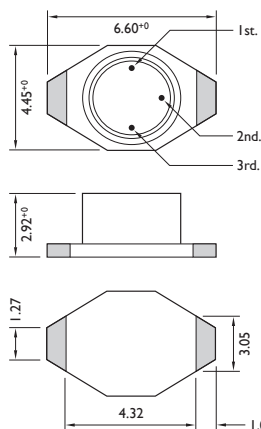
High energy storage and very low resistance.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M $\pm$ 20%
- Note: YAGEO will start to release SDS Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO International No. will be changed to "N" as identification. Ex.: SDS0402BL-101M-N.

## SHAPE AND DIMENSIONS



Dimensions : mm

These shielded ultra-miniature inductors can help designers achieving significantly longer battery life in handheld communication devices and other portable products.

The SDS0402 Series offers the highest efficiency, smallest size and lowest cost of any comparable part. DC resistance is 10% to 60% lower than other inductors, with greatest efficiency improvements seen at inductance values from 100 to 10,000 $\mu$ H.

These magnetically shielded inductors are designed with a flat top and constructed of heat resistant materials to ensure trouble-free assembly and reflow operations.

## APPLICATIONS

Notebook computers, step-up and step-down converters.

Flash memory programmers, etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu$ H $\pm$ 20%)* | Q<br>Min. | Q<br>FREQUENCY<br>(KHz) | DC<br>RESISTANCE<br>( $\Omega$ <sup>th</sup> ) Max. | SRF<br>(MHz) | CURRENT<br>(A) Max.** |
|-----------------|-------------------------------------|-----------|-------------------------|-----------------------------------------------------|--------------|-----------------------|
| SDS0402T-1R0M-S | 1.0                                 | 30        | 200                     | 0.040                                               | 200          | 3.0                   |
| SDS0402T-1R5M-S | 1.5                                 | 30        | 200                     | 0.045                                               | 100          | 2.8                   |
| SDS0402T-2R2M-S | 2.2                                 | 40        | 200                     | 0.050                                               | 90           | 1.8                   |
| SDS0402T-3R3M-S | 3.3                                 | 40        | 200                     | 0.060                                               | 90           | 1.6                   |
| SDS0402T-4R7M-S | 4.7                                 | 40        | 200                     | 0.065                                               | 80           | 1.4                   |
| SDS0402T-6R8M-S | 6.8                                 | 40        | 200                     | 0.070                                               | 40           | 1.2                   |
| SDS0402T-100M-S | 10                                  | 40        | 200                     | 0.075                                               | 30           | 1.0                   |
| SDS0402T-150M-S | 15                                  | 40        | 100                     | 0.090                                               | 25           | 0.80                  |
| SDS0402T-220M-S | 22                                  | 40        | 100                     | 0.110                                               | 20           | 0.70                  |
| SDS0402T-330M-S | 33                                  | 40        | 100                     | 0.190                                               | 15           | 0.60                  |
| SDS0402T-470M-S | 47                                  | 40        | 100                     | 0.230                                               | 15           | 0.50                  |
| SDS0402T-680M-S | 68                                  | 40        | 100                     | 0.290                                               | 10           | 0.40                  |
| SDS0402T-101M-S | 100                                 | 40        | 100                     | 0.480                                               | 8            | 0.30                  |
| SDS0402T-151M-S | 150                                 | 40        | 100                     | 0.590                                               | 7            | 0.26                  |
| SDS0402T-221M-S | 220                                 | 40        | 100                     | 0.770                                               | 4            | 0.22                  |
| SDS0402T-331M-S | 330                                 | 40        | 100                     | 1.4                                                 | 4            | 0.20                  |
| SDS0402T-471M-S | 470                                 | 40        | 100                     | 1.8                                                 | 3            | 0.19                  |
| SDS0402T-681M-S | 680                                 | 40        | 100                     | 2.2                                                 | 2            | 0.18                  |
| SDS0402T-102M-S | 1000                                | 40        | 100                     | 3.4                                                 | 1            | 0.15                  |
| SDS0402T-152M-S | 1500                                | 50        | 100                     | 4.2                                                 | 1            | 0.12                  |
| SDS0402T-222M-S | 2200                                | 50        | 100                     | 8.5                                                 | 1            | 0.10                  |
| SDS0402T-332M-S | 3300                                | 50        | 100                     | 11                                                  | 0.5          | 0.08                  |
| SDS0402T-472M-S | 4700                                | 50        | 100                     | 13.9                                                | 0.5          | 0.06                  |
| SDS0402T-682M-S | 6800                                | 50        | 100                     | 25                                                  | 0.5          | 0.04                  |
| SDS0402T-103M-S | 10000                               | 50        | 100                     | 32.8                                                | 0.4          | 0.02                  |

\* Inductance Tested at 0.1 Vrms, 100KHz

\*\* 30°C Temperature Rise

Operating Temperature Range -40°C to +85°C



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.         | INDUCTANCE<br>at 50MHz<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | Rdc<br>Max | Irms<br>(A) | Isat<br>(A) | SRF<br>(MHZ)<br>TYP | Q FREQ<br>MIN<br>(KHz) | COLOR CODING    |                 |                 |
|------------------|--------------------------------|----------------------------|------------|-------------|-------------|---------------------|------------------------|-----------------|-----------------|-----------------|
|                  |                                |                            |            |             |             |                     |                        | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> |
| SDS0402T-1R0 □-N | 1                              | 100KHz,0.1V                | 0.04       | 3           | 0.25        | 200                 | 30/200                 | BRN             | BLK             | RED             |
| SDS0402T-1R5 □-N | 1.5                            | 100KHz,0.1V                | 0.045      | 2.8         | 0.25        | 100                 | 30/200                 | BRN             | GRN             | RED             |
| SDS0402T-2R2 □-N | 2.2                            | 100KHz,0.1V                | 0.05       | 1.8         | 0.2         | 90                  | 40/200                 | RED             | RED             | RED             |
| SDS0402T-3R3 □-N | 3.3                            | 100KHz,0.1V                | 0.06       | 1.6         | 0.15        | 90                  | 40/200                 | ORN             | ORN             | RED             |
| SDS0402T-4R7 □-N | 4.7                            | 100KHz,0.1V                | 0.065      | 1.4         | 0.12        | 80                  | 40/200                 | YEL             | VIO             | RED             |
| SDS0402T-6R8 □-N | 6.8                            | 100KHz,0.1V                | 0.07       | 1.2         | 0.1         | 40                  | 40/200                 | BLU             | GRY             | RED             |
| SDS0402T-100 □-N | 10                             | 100KHz,0.1V                | 0.075      | 1           | 0.075       | 30                  | 40/200                 | BRN             | BLK             | ORN             |
| SDS0402T-150 □-N | 15                             | 100KHz,0.1V                | 0.09       | 0.8         | 0.06        | 25                  | 40/100                 | BRN             | GRN             | ORN             |
| SDS0402T-220 □-N | 22                             | 100KHz,0.1V                | 0.11       | 0.7         | 0.06        | 20                  | 40/100                 | RED             | RED             | ORN             |
| SDS0402T-330 □-N | 33                             | 100KHz,0.1V                | 0.19       | 0.6         | 0.04        | 15                  | 40/100                 | ORN             | ORN             | ORN             |
| SDS0402T-470 □-N | 47                             | 100KHz,0.1V                | 0.23       | 0.5         | 0.03        | 15                  | 40/100                 | YEL             | VIO             | ORN             |
| SDS0402T-680 □-N | 68                             | 100KHz,0.1V                | 0.29       | 0.4         | 0.025       | 10                  | 40/100                 | BLU             | GRY             | ORN             |
| SDS0402T-101 □-N | 100                            | 100KHz,0.1V                | 0.48       | 0.3         | 0.025       | 8                   | 40/100                 | BRN             | BLK             | YEL             |
| SDS0402T-151 □-N | 150                            | 100KHz,0.1V                | 0.59       | 0.26        | 0.025       | 7                   | 40/100                 | BRN             | GRN             | YEL             |
| SDS0402T-221 □-N | 220                            | 100KHz,0.1V                | 0.77       | 0.22        | 0.015       | 4                   | 40/100                 | RED             | RED             | YEL             |
| SDS0402T-331 □-N | 330                            | 100KHz,0.1V                | 1.4        | 0.2         | 0.015       | 4                   | 40/100                 | ORN             | ORN             | YEL             |
| SDS0402T-471 □-N | 470                            | 100KHz,0.1V                | 1.8        | 0.19        | 0.01        | 3                   | 40/100                 | YEL             | VIO             | YEL             |
| SDS0402T-681 □-N | 680                            | 100KHz,0.1V                | 2.2        | 0.18        | 0.01        | 2                   | 40/100                 | BLU             | GRY             | YEL             |
| SDS0402T-102 □-N | 1000                           | 100KHz,0.1V                | 3.4        | 0.15        | 0.01        | 1                   | 40/100                 | BRN             | BLK             | GRN             |
| SDS0402T-152 □-N | 1500                           | 100KHz,0.1V                | 4.2        | 0.12        | 0.005       | 1                   | 50/100                 | BRN             | GRN             | GRN             |
| SDS0402T-222 □-N | 2200                           | 100KHz,0.1V                | 8.5        | 0.1         | 0.005       | 1                   | 50/100                 | RED             | RED             | GRN             |
| SDS0402T-332 □-N | 3300                           | 100KHz,0.1V                | 11         | 0.08        | 0.005       | 0.5                 | 50/100                 | ORN             | ORN             | GRN             |
| SDS0402T-472 □-N | 4700                           | 100KHz,0.1V                | 13.9       | 0.06        | 0.005       | 0.5                 | 50/100                 | YEL             | VIO             | GRN             |
| SDS0402T-682 □-N | 6800                           | 100KHz,0.1V                | 25         | 0.04        | 0.005       | 0.5                 | 50/100                 | BLU             | GRY             | GRN             |
| SDS0402T-103 □-N | 10000                          | 100KHz,0.1V                | 32.8       | 0.02        | 0.002       | 0.4                 | 50/100                 | BRN             | BLK             | BLU             |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

• Operating Temperature Range from -40°C to 85°C

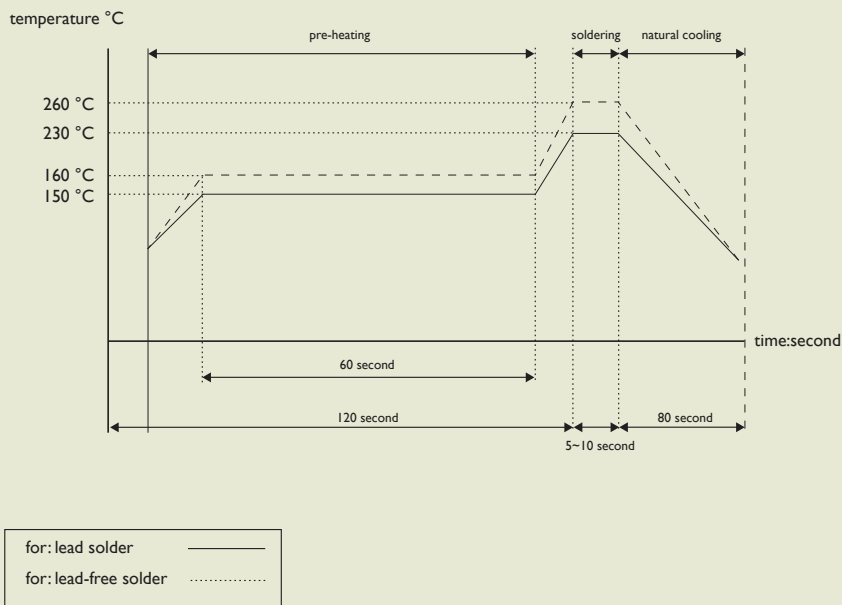
• inductance drop t10% type

• 30°C rise typ at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



## Shielded SMD Power Inductors

# SDS0402BL Series

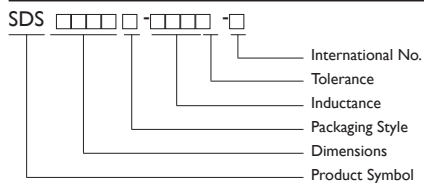


### FEATURES

Smallest size and high performance

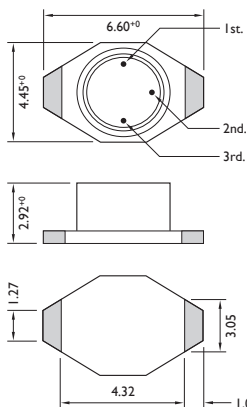
High energy storage and very low resistance.

### PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M $\pm$ 20%
- Note: YAGEO will start to release SDS Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO International No. will be changed to "N" as identification. Ex.: SDS0402BL-101M-N.

### SHAPE AND DIMENSIONS



### APPLICATIONS

Notebook computers, step-up and step-down converters.

Flash memory programmers, etc...

These shielded ultra-miniature inductors can help designers achieving significantly longer battery life in handheld communication devices and other portable products.

The SDS0402BL Series offers the highest efficiency, smallest size and lowest cost of any comparable part. DC resistance is 10% to 60% lower than other inductors, with greatest efficiency improvements seen at inductance values from 100 to 10,000 $\mu$ H.

These magnetically shielded inductors are designed with a flat top and constructed of heat resistant materials to ensure trouble-free assembly and reflow operations.

### ELECTRICAL CHARACTERISTICS

| PART NO.         | INDUCTANCE (mH)* | TOLERANCE ( $\pm$ %) | DC RESISTANCE ( $\Omega$ ) <sup>†</sup> Max. | INSULATION CORE-WINDING (M $\Omega$ ) | SRF (MHz) | CURRENT (mA) Max.** |
|------------------|------------------|----------------------|----------------------------------------------|---------------------------------------|-----------|---------------------|
| SDS0402BL-101M-S | 0.10             | 20                   | 0.95                                         | > 10                                  | 12        | 220                 |
| SDS0402BL-151M-S | 0.15             | 20                   | 1.4                                          | > 10                                  | 10        | 200                 |
| SDS0402BL-221M-S | 0.22             | 20                   | 1.7                                          | > 10                                  | 8         | 180                 |
| SDS0402BL-331M-S | 0.33             | 20                   | 2.2                                          | > 10                                  | 6         | 160                 |
| SDS0402BL-471M-S | 0.47             | 20                   | 3.8                                          | > 10                                  | 5         | 140                 |
| SDS0402BL-681M-S | 0.68             | 20                   | 4.9                                          | > 10                                  | 4         | 120                 |
| SDS0402BL-102M-S | 1.0              | 20                   | 9                                            | > 10                                  | 2         | 100                 |
| SDS0402BL-152M-S | 1.5              | 20                   | 11                                           | > 10                                  | 1         | 80                  |
| SDS0402BL-222M-S | 2.2              | 20                   | 19                                           | > 10                                  | 1         | 50                  |
| SDS0402BL-332M-S | 3.3              | 20                   | 24                                           | > 10                                  | 1         | 40                  |
| SDS0402BL-472M-S | 4.7              | 20                   | 30                                           | > 10                                  | 1         | 30                  |
| SDS0402BL-682M-S | 6.8              | 20                   | 56                                           | > 10                                  | 0.9       | 20                  |
| SDS0402BL-103M-S | 10.0             | 20                   | 74                                           | > 10                                  | 0.8       | 10                  |

\* Inductance Tested at 0.1 Vrms, 100KHz

\*\* 30°C Temperature Rise

Operating Temperature Range -40°C to +85°C

Electrical Specifications at 25°C



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.           | INDUCTANCE<br>at 50MHz<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | Rdc<br>Max | I <sub>rms</sub><br>(A) | I <sub>sat</sub><br>(A) | SRF<br>(MHZ)<br>TYP | Q FREQ<br>MIN<br>(KHz) | COLOR CODING    |                 |                 |
|--------------------|--------------------------------|----------------------------|------------|-------------------------|-------------------------|---------------------|------------------------|-----------------|-----------------|-----------------|
|                    |                                |                            |            |                         |                         |                     |                        | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> |
| SDS0402BL-101 □ -N | 100                            | >10                        | 100KHz     | 12                      | 0.95                    | 220                 | BRN                    | BLK             | YEL             |                 |
| SDS0402BL-151 □ -N | 150                            | >10                        | 100KHz     | 10                      | 1.4                     | 200                 | BRN                    | GRN             | YEL             |                 |
| SDS0402BL-221 □ -N | 220                            | >10                        | 100KHz     | 8                       | 1.7                     | 180                 | RED                    | RED             | YEL             |                 |
| SDS0402BL-331 □ -N | 330                            | >10                        | 100KHz     | 6                       | 2.2                     | 160                 | ORN                    | ORN             | YEL             |                 |
| SDS0402BL-471 □ -N | 470                            | >10                        | 100KHz     | 5                       | 3.8                     | 140                 | YEL                    | VIO             | YEL             |                 |
| SDS0402BL-681 □ -N | 680                            | >10                        | 100KHz     | 4                       | 4.9                     | 120                 | BLU                    | GRY             | YEL             |                 |
| SDS0402BL-102 □ -N | 1000                           | >10                        | 100KHz     | 2                       | 9                       | 100                 | BRN                    | BLK             | GRN             |                 |
| SDS0402BL-152 □ -N | 1500                           | >10                        | 100KHz     | 1                       | 11                      | 80                  | BRN                    | GRN             | GRN             |                 |
| SDS0402BL-222 □ -N | 2200                           | >10                        | 100KHz     | 1                       | 19                      | 50                  | RED                    | RED             | GRN             |                 |
| SDS0402BL-332 □ -N | 3300                           | >10                        | 100KHz     | 1                       | 24                      | 40                  | ORN                    | ORN             | GRN             |                 |
| SDS0402BL-472 □ -N | 4700                           | >10                        | 100KHz     | 1                       | 30                      | 30                  | YEL                    | VIO             | GRN             |                 |
| SDS0402BL-682 □ -N | 6800                           | >10                        | 100KHz     | 0.9                     | 56                      | 20                  | BLU                    | GRY             | GRN             |                 |
| SDS0402BL-103 □ -N | 10000                          | >10                        | 100KHz     | 0.8                     | 74                      | 10                  | BRN                    | BLK             | BLU             |                 |

NOTE : □ -tolerance M=±20%

1. Operating temperature range -40°C~85°C

2. Inductance Test OSC @ 0.1V

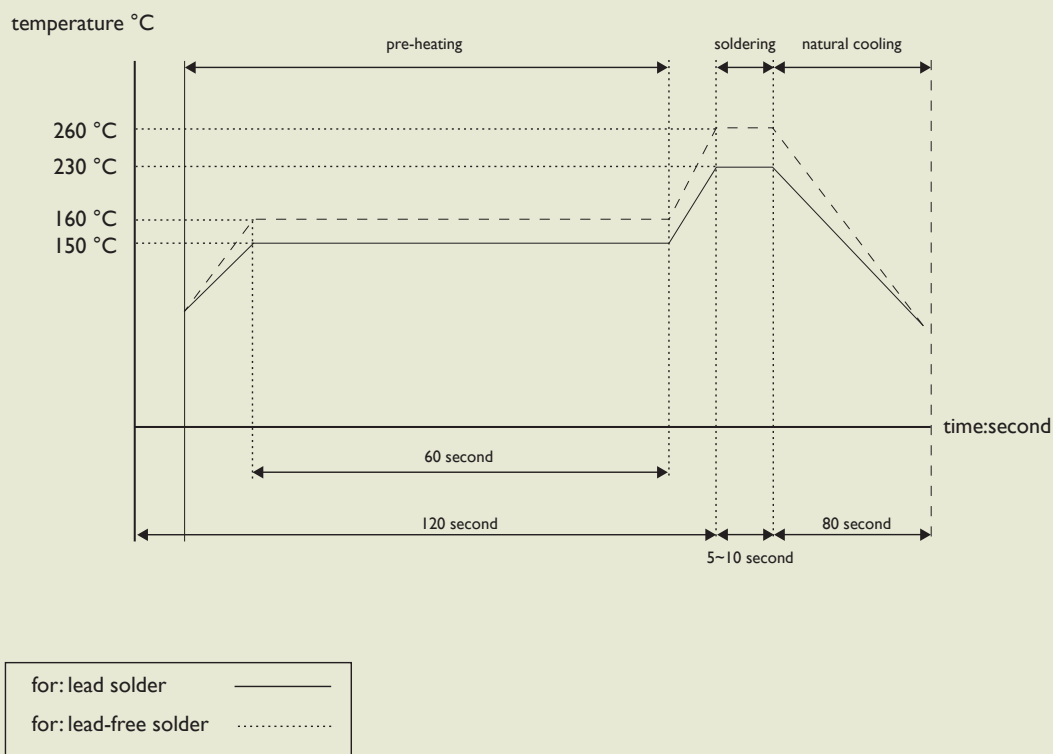
3. Insulation core-winding Test OSC @ 500mV

4. 30°C rise typ.at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



## SMD Power Inductors

## SDS0804 Series

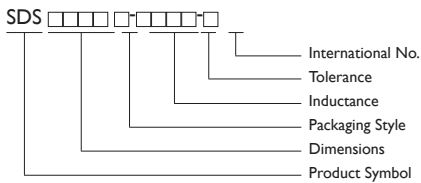


## FEATURES

Smallest size and high performance

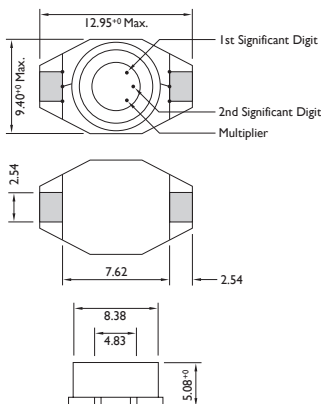
High energy storage and very low resistance.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M $\pm$ 20%
- Note: YAGEO will start to release SDS Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO International No. will be changed to "N" as identification. Ex.: SDS0402BL-I01M-N.

## SHAPE AND DIMENSIONS



Dimensions : mm

These shielded ultra-miniature inductors can help designers achieving significantly longer battery life in handheld communication devices and other portable products.

These magnetically shielded inductors are designed with a flat top and constructed of heat resistant materials to ensure trouble-free assembly and reflow operations.

## APPLICATIONS

Notebook computers, step-up and step-down converters.

Flash memory programmers, etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ ) * | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | Isat **<br>(A) Min. | Irms ***<br>(A) | SRF<br>(MHz) |
|-----------------|--------------------------------------------|---------------------------------------|---------------------|-----------------|--------------|
| SDS0804T-1R0M-S | 1.0                                        | 0.021                                 | 5.6                 | 5.0             | 110          |
| SDS0804T-1R5M-S | 1.5                                        | 0.022                                 | 5.2                 | 4.5             | 90           |
| SDS0804T-2R2M-S | 2.2                                        | 0.032                                 | 5.0                 | 3.8             | 60           |
| SDS0804T-3R3M-S | 3.3                                        | 0.039                                 | 3.9                 | 3.3             | 55           |
| SDS0804T-4R7M-S | 4.7                                        | 0.054                                 | 3.2                 | 2.7             | 30           |
| SDS0804T-6R8M-S | 6.8                                        | 0.075                                 | 2.8                 | 2.2             | 30           |
| SDS0804T-100M-S | 10                                         | 0.101                                 | 2.4                 | 2.0             | 28           |
| SDS0804T-150M-S | 15                                         | 0.150                                 | 2.0                 | 1.5             | 20           |
| SDS0804T-220M-S | 22                                         | 0.207                                 | 1.6                 | 1.3             | 15           |
| SDS0804T-330M-S | 33                                         | 0.334                                 | 1.4                 | 1.1             | 12           |
| SDS0804T-470M-S | 47                                         | 0.472                                 | 1.0                 | 0.8             | 10           |

\* Inductance Tested at 0.1 Vrms, 100KHz

\*\* Inductance Drop = 10% Typ. at Rated Isat.

\*\*\* 40° Rise Typ. at Irms.

Operating Temperature Range -40°C to +85°C



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.         | INDUCTANCE<br>at 50MHz<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>Max | I <sub>rms</sub><br>(A) | I <sub>sat</sub><br>(A) | SRF<br>(MHZ)<br>TYP | Q FREQ<br>MIN<br>(KHz) |
|------------------|--------------------------------|----------------------------|------------------------|-------------------------|-------------------------|---------------------|------------------------|
| SDS0804T-1R0 □-N | 1                              | 100KHZ,0.1V                | 0.021                  | 5                       | 5.6                     | 110                 | 3/100                  |
| SDS0804T-1R5 □-N | 1.5                            | 100KHZ,0.1V                | 0.022                  | 4.5                     | 5.2                     | 90                  | 5/100                  |
| SDS0804T-2R2 □-N | 2.2                            | 100KHZ,0.1V                | 0.032                  | 3.8                     | 5                       | 60                  | 5/100                  |
| SDS0804T-3R3 □-N | 3.3                            | 100KHZ,0.1V                | 0.039                  | 3.3                     | 3.9                     | 55                  | 5/100                  |
| SDS0804T-4R7 □-N | 4.7                            | 100KHZ,0.1V                | 0.054                  | 2.7                     | 3.2                     | 30                  | 10/100                 |
| SDS0804T-6R8 □-N | 6.8                            | 100KHZ,0.1V                | 0.075                  | 2.2                     | 2.8                     | 30                  | 10/100                 |
| SDS0804T-100 □-N | 10                             | 100KHZ,0.1V                | 0.101                  | 2                       | 2.4                     | 28                  | 10/100                 |
| SDS0804T-150 □-N | 15                             | 100KHZ,0.1V                | 0.15                   | 1.5                     | 2                       | 20                  | 15/100                 |
| SDS0804T-220 □-N | 22                             | 100KHZ,0.1V                | 0.207                  | 1.3                     | 1.6                     | 15                  | 20/100                 |
| SDS0804T-330 □-N | 33                             | 100KHZ,0.1V                | 0.334                  | 1.1                     | 1.4                     | 12                  | 20/100                 |
| SDS0804T-470 □-N | 47                             | 100KHZ,0.1V                | 0.472                  | 0.8                     | 1                       | 10                  | 20/100                 |
| SDS0804T-680 □-N | 68                             | 100KHZ,0.1V                | 0.66                   | 0.7                     | 0.9                     | 10                  | -                      |
| SDS0804T-101 □-N | 100                            | 100KHZ,0.1V                | 1.11                   | 0.6                     | 0.8                     | 7                   | -                      |
| SDS0804T-150 □-N | 150                            | 100KHZ,0.1V                | 1.55                   | 0.5                     | 0.6                     | 6                   | -                      |
| SDS0804T-221 □-N | 220                            | 100KHZ,0.1V                | 2                      | 0.37                    | 0.5                     | 5                   | -                      |
| SDS0804T-102 □-N | 1000                           | 100KHZ,0.1V                | 8.3                    | 0.17                    | 0.32                    | 2                   | -                      |

NOTE : □ -tolerance K=±10% / ±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

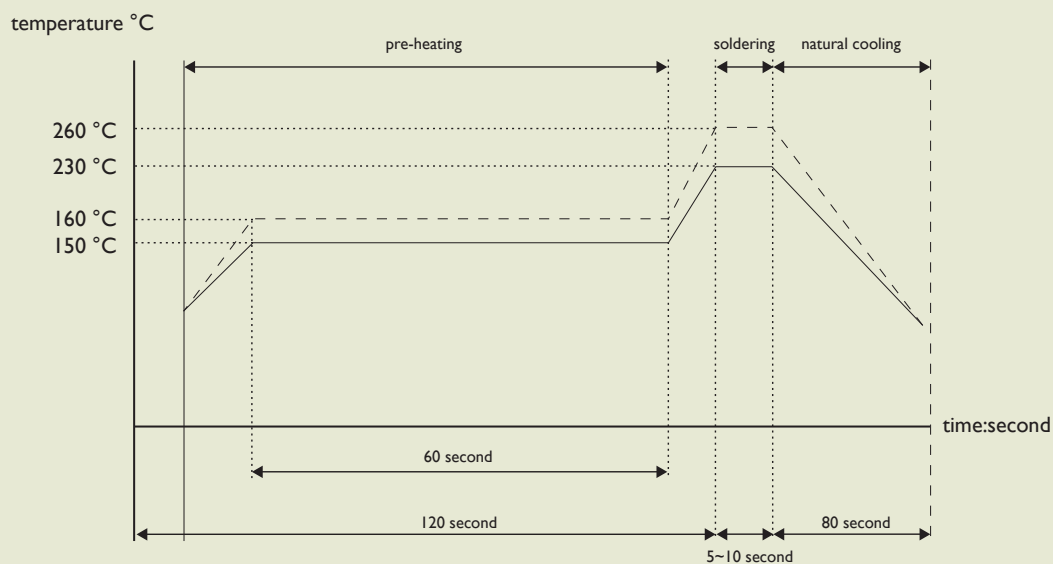
2. Inductance drop 10% typ. at last

4. 40°C rise typ. at I<sub>rms</sub>.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder

for: lead-free solder

## SMD Power Inductors

## SDS I 306 Series

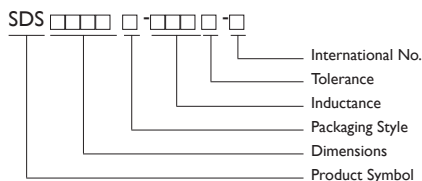


## FEATURES

Smallest size and high performance

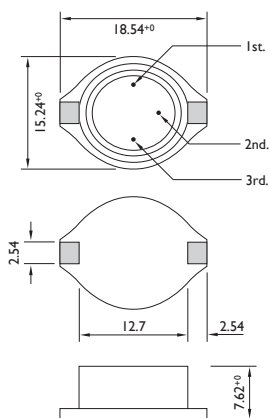
High energy storage and very low resistance.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M $\pm$ 20%
- Note: YAGEO will start to release SDS Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO International No. will be changed to "N" as identification. Ex.: SDS0402BL-101M-N.

## SHAPE AND DIMENSIONS



## APPLICATIONS

Notebook computers, step-up and step-down converters.

Flash memory programmers, etc...

The SDSI306 Series is a family of magnetically shielded power inductors designed for the higher current requirements of portable computers, Video recorders and other DC-DC conversion applications.

They feature saturation current ratings as high 9 Amps and rms current ratings up to 3.9 Amps. Low DC resistance (as low as .040 Ohms) keeps power losses to a minimum.

Designed specifically for surface mounting, the SDSI306 has a flat top for reliable pick and place operations. The terminals wrap around the end of the base to ensure a sound solder fillet and simplify inspection.

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu$ H $\pm$ 20%) * | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | Isat **<br>(A) | Irms ***<br>(A) | SRF<br>MHz **<br>(Ref.) Max. |
|-----------------|--------------------------------------|---------------------------------------|----------------|-----------------|------------------------------|
| SDSI306T-100M-S | 10                                   | 0.040                                 | 5.5            | 3.9             | 24                           |
| SDSI306T-150M-S | 15                                   | 0.048                                 | 4.5            | 3.4             | 16                           |
| SDSI306T-220M-S | 22                                   | 0.059                                 | 3.5            | 3.1             | 14                           |
| SDSI306T-330M-S | 33                                   | 0.075                                 | 3.3            | 2.8             | 11                           |
| SDSI306T-470M-S | 47                                   | 0.097                                 | 2.7            | 2.4             | 8.0                          |
| SDSI306T-680M-S | 68                                   | 0.138                                 | 2.2            | 2.0             | 7.0                          |
| SDSI306T-101M-S | 100                                  | 0.207                                 | 1.7            | 1.7             | 5.5                          |
| SDSI306T-151M-S | 150                                  | 0.293                                 | 1.3            | 1.3             | 4.8                          |
| SDSI306T-221M-S | 220                                  | 0.470                                 | 1.1            | 1.1             | 4.0                          |
| SDSI306T-331M-S | 330                                  | 0.780                                 | 0.86           | 0.86            | 3.0                          |
| SDSI306T-471M-S | 470                                  | 1.08                                  | 0.73           | 0.73            | 2.4                          |
| SDSI306T-681M-S | 680                                  | 1.40                                  | 0.64           | 0.64            | 2.0                          |
| SDSI306T-102M-S | 1000                                 | 2.01                                  | 0.53           | 0.53            | 1.0                          |

\* Inductance Tested at 0.1 Vrms, 100KHz

\*\* Inductance Drop 10% Typ. at Isat.

\*\*\* 40°C Rise Typ. at Irms.

Operating Temperature Range -40°C to +85°C



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.         | INDUCTANCE<br>at 50MHz<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>Max | I <sub>rms</sub><br>(A) | I <sub>sat</sub><br>(A) | SRF<br>(MHZ)<br>TYP | Q FREQ<br>MIN<br>(KHz) |
|------------------|--------------------------------|----------------------------|------------------------|-------------------------|-------------------------|---------------------|------------------------|
| SDSI306T-100 □-N | 10                             | 100KHZ,0.1V                | 0.04                   | 3.9                     | 5.5                     | 24                  | 40/100                 |
| SDSI306T-150 □-N | 15                             | 100KHZ,0.1V                | 0.048                  | 3.4                     | 4.5                     | 16                  | 40/100                 |
| SDSI306T-220 □-N | 22                             | 100KHZ,0.1V                | 0.059                  | 3.1                     | 3.5                     | 14                  | 30/100                 |
| SDSI306T-330 □-N | 33                             | 100KHZ,0.1V                | 0.075                  | 2.8                     | 3.3                     | 11                  | 40/100                 |
| SDSI306T-470 □-N | 47                             | 100KHZ,0.1V                | 0.097                  | 2.4                     | 2.7                     | 8                   | 40/100                 |
| SDSI306T-680 □-N | 68                             | 100KHZ,0.1V                | 0.14                   | 2                       | 2.2                     | 7                   | 40/100                 |
| SDSI306T-101 □-N | 100                            | 100KHZ,0.1V                | 0.21                   | 1.7                     | 1.7                     | 5.5                 | 40/100                 |
| SDSI306T-151 □-N | 150                            | 100KHZ,0.1V                | 0.3                    | 1.3                     | 1.3                     | 4.8                 | 50/100                 |
| SDSI306T-221 □-N | 220                            | 100KHZ,0.1V                | 0.47                   | 1.1                     | 1.1                     | 4                   | 50/100                 |
| SDSI306T-331 □-N | 330                            | 100KHZ,0.1V                | 0.78                   | 0.86                    | 0.86                    | 3                   | 50/100                 |
| SDSI306T-471 □-N | 470                            | 100KHZ,0.1V                | 1.08                   | 0.73                    | 0.73                    | 2.4                 | 50/100                 |
| SDSI306T-681 □-N | 680                            | 100KHZ,0.1V                | 1.4                    | 0.64                    | 0.64                    | 2                   | 60/100                 |
| SDSI306T-102 □-N | 1000                           | 100KHZ,0.1V                | 2.01                   | 0.53                    | 0.53                    | 1                   | 60/100                 |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop 10% typ. at last

4. 40°C rise typ. at I<sub>rms</sub>.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

|           |                 |      |      |    |    |    |    |                     |       |      |      |                 |     |    |      | Dimensions : mm     |      |
|-----------|-----------------|------|------|----|----|----|----|---------------------|-------|------|------|-----------------|-----|----|------|---------------------|------|
| TYPE      | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |       |      |      | REEL DIMENSIONS |     |    |      | QUANTITY (PCS/REEL) |      |
|           | K0              | D    | E    | W  | P  | P0 | P2 | A                   | B     | C    | D    | A               | B   | C  | D    | 178                 | 330  |
| SDS0402BL | 3.2             | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.86                | 4.06  | 3.56 | 1.40 | 330             | 100 | 13 | 13.4 | -                   | 2500 |
|           |                 |      |      |    |    |    |    |                     |       |      |      | 178             | 60  | 13 | 13.2 | 750                 | -    |
| SDS0402T  | 3.2             | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.86                | 4.06  | 3.56 | 1.40 | 330             | 100 | 13 | 13.4 | -                   | 2500 |
|           |                 |      |      |    |    |    |    |                     |       |      |      | 178             | 60  | 13 | 13.2 | 750                 | -    |
| SDS0804T  | 5.4             | 1.55 | 1.75 | 24 | 12 | 4  | 2  | 13.21               | 7.37  | 2.79 | 2.92 | 330             | 100 | 13 | 24.4 | -                   | 1000 |
| SDSI306T  | 7.5             | 1.55 | 1.75 | 32 | 20 | 4  | 2  | 18.29               | 12.45 | 2.79 | 2.92 | 330             | 100 | 13 | 33.4 | -                   | 250  |



## SDS SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

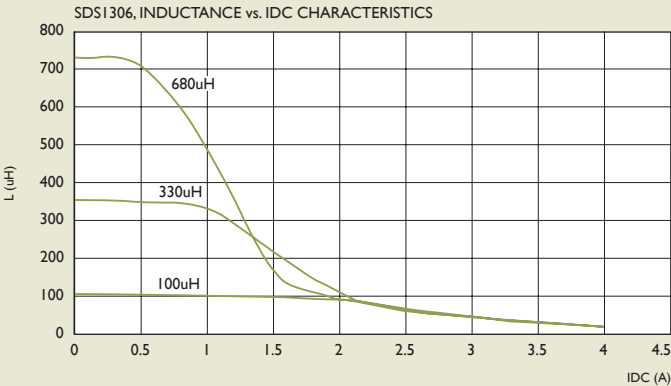
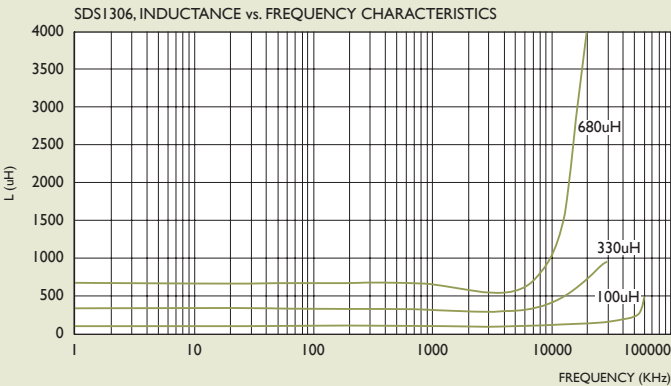
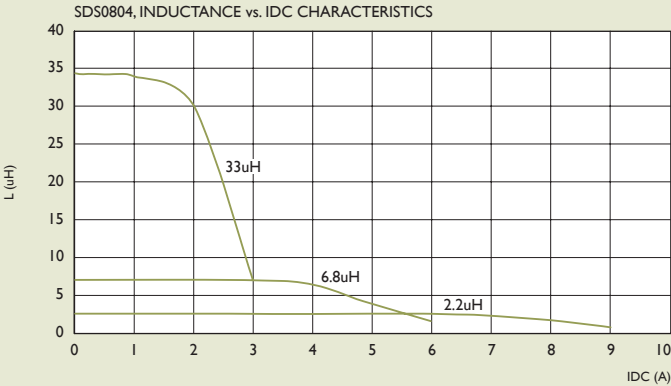
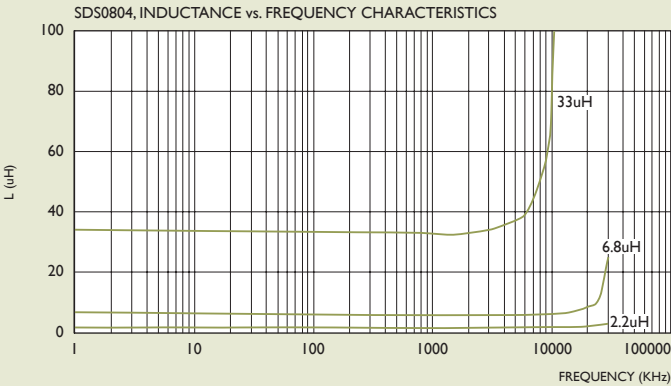
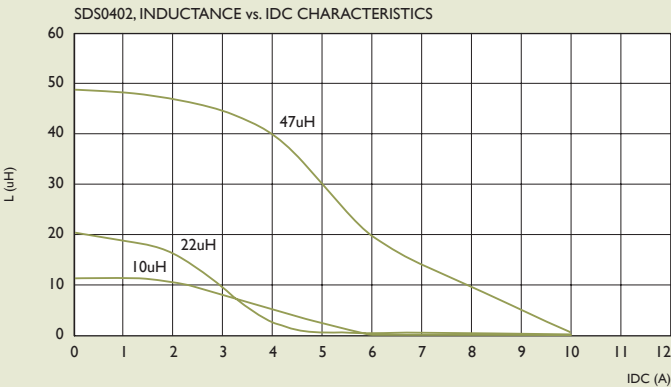
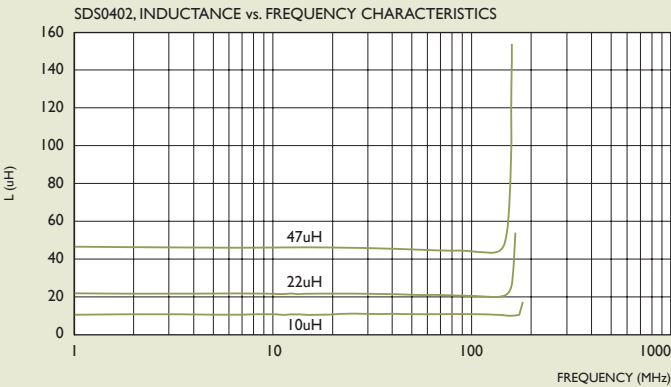
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                               | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
|-------|------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------|-------------|---|-------------|----|---|------------|---|---|------------|----|---|------------|---|
| I-2-1 | Temperature Shock                  | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>L Change : within $\pm 30\%$<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to $-55^{\circ}\text{C}$<br>30Min. Exposure to $-125^{\circ}\text{C}$<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-2 | Temperature Cycle                  |                                                                                                                      | One Cycle <table><tr><th>Step</th><th>Temperature (<math>^{\circ}\text{C}</math>)</th><th>Time (Min.)</th></tr><tr><td>1</td><td><math>-25 \pm 3</math></td><td>30</td></tr><tr><td>2</td><td><math>25 \pm 2</math></td><td>3</td></tr><tr><td>3</td><td><math>85 \pm 3</math></td><td>30</td></tr><tr><td>4</td><td><math>25 \pm 2</math></td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.) | 1 | $-25 \pm 3$ | 30 | 2 | $25 \pm 2$ | 3 | 3 | $85 \pm 3$ | 30 | 4 | $25 \pm 2$ | 3 |
| Step  | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.)                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 1     | $-25 \pm 3$                        | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 2     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 3     | $85 \pm 3$                         | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 4     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-3 | Humidity Resistance                |                                                                                                                      | Temperature : $40 \pm 2^{\circ}\text{C}$<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                               |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-4 | High Temperature Resistance        |                                                                                                                      | Temperature : $85 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                 |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-5 | Low Temperature Resistance         |                                                                                                                      | Temperature : $-25 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                                    |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |



TYPICAL ELECTRICAL CHARACTERISTICS

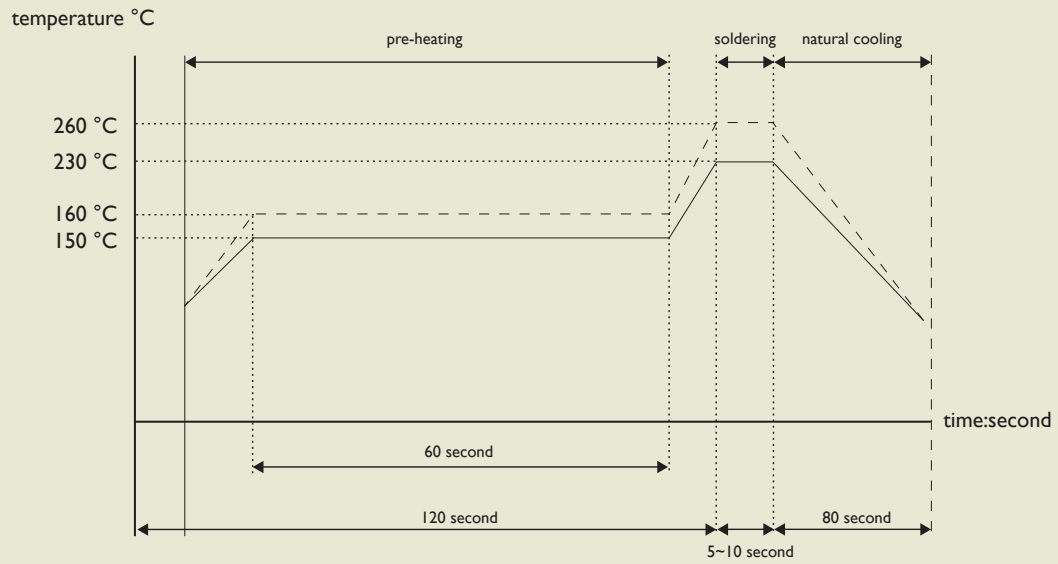
Curves of SCD Series  
Test Instruments : HP4291A Impedance / Material Analyzer





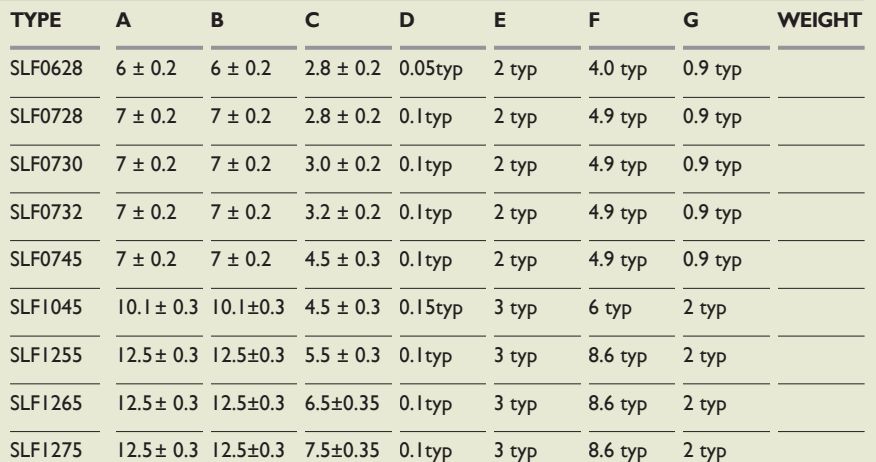
## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder ————  
for: lead-free solder .....

## PRODUCT IDENTIFICATION





## ELECTRICAL CHARACTERISTICS SLF0628 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST<br>FREQUENCY<br>L(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|-------------------------|-----------------------------|--------------------------------------------|------------------------------|-------------------|
| SLF0628T-4R7M-S | 4.7                      | 20                      | I                           | 0.0284                                     | 1.6                          | 2.5               |
| SLF0628T-6R8M-S | 6.8                      | 20                      | I                           | 0.0354                                     | 1.5                          | 2.2               |
| SLF0628T-100M-S | 10                       | 20                      | I                           | 0.0532                                     | 1.3                          | 1.8               |
| SLF0628T-150M-S | 15                       | 20                      | I                           | 0.0745                                     | 1.0                          | 1.4               |
| SLF0628T-220M-S | 22                       | 20                      | I                           | 0.104                                      | 0.77                         | 1.3               |
| SLF0628T-330M-S | 33                       | 20                      | I                           | 0.148                                      | 0.69                         | 1.1               |
| SLF0628T-470M-S | 47                       | 20                      | I                           | 0.21                                       | 0.59                         | 0.92              |
| SLF0628T-680M-S | 68                       | 20                      | I                           | 0.29                                       | 0.50                         | 0.78              |
| SLF0628T-101M-S | 100                      | 20                      | I                           | 0.43                                       | 0.42                         | 0.64              |

IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.         | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|------------------|--------------------------|-------------------|-------------------------------|---------------|-------------------|
| SLF0628T-4R7 □-N | 4.7                      | 0.5V 1KHZ         | 0.0284                        | 1.6           | 2.5               |
| SLF0628T-6R8 □-N | 6.8                      | 0.5V 1KHZ         | 0.0354                        | 1.5           | 2.2               |
| SLF0628T-100 □-N | 10                       | 0.5V 1KHZ         | 0.0532                        | 1.3           | 1.8               |
| SLF0628T-150 □-N | 15                       | 0.5V 1KHZ         | 0.0745                        | 1             | 1.4               |
| SLF0628T-220 □-N | 22                       | 0.5V 1KHZ         | 0.104                         | 0.77          | 1.3               |
| SLF0628T-330 □-N | 33                       | 0.5V 1KHZ         | 0.148                         | 0.69          | 1.1               |
| SLF0628T-470 □-N | 47                       | 0.5V 1KHZ         | 0.21                          | 0.59          | 0.92              |
| SLF0628T-680 □-N | 68                       | 0.5V 1KHZ         | 0.29                          | 0.5           | 0.78              |
| SLF0628T-101 □-N | 100                      | 0.5V 1KHZ         | 0.43                          | 0.42          | 0.64              |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF0728 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST FREQUENCY<br>L(KHz) | DC RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED CURRENT<br>(A) Max. |
|-----------------|--------------------------|-------------------------|--------------------------|-----------------------------------------|---------------------------|
| SLF0728T-3R3M-S | 3.3                      | 20                      | I                        | 0.037                                   | 1.6                       |
| SLF0728T-4R7M-S | 4.7                      | 20                      | I                        | 0.045                                   | 1.5                       |
| SLF0728T-6R8M-S | 6.8                      | 20                      | I                        | 0.059                                   | 1.3                       |
| SLF0728T-100M-S | 10                       | 20                      | I                        | 0.083                                   | 1.1                       |
| SLF0728T-150M-S | 15                       | 20                      | I                        | 0.13                                    | 0.88                      |
| SLF0728T-220M-S | 22                       | 20                      | I                        | 0.18                                    | 0.75                      |
| SLF0728T-330M-S | 33                       | 20                      | I                        | 0.24                                    | 0.65                      |
| SLF0728T-470M-S | 47                       | 20                      | I                        | 0.34                                    | 0.54                      |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | RATED CURRENT<br>(A)Max |
|-------------------|--------------------------|-------------------|-------------------------------|-------------------------|
| SLF0728T-3R3 □ -N | 3.3                      | 0.5V 1KHZ         | 0.037                         | 1.60                    |
| SLF0728T-4R7 □ -N | 4.7                      | 0.5V 1KHZ         | 0.045                         | 1.50                    |
| SLF0728T-6R8 □ -N | 6.8                      | 0.5V 1KHZ         | 0.059                         | 1.30                    |
| SLF0728T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.083                         | 1.10                    |
| SLF0728T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.130                         | 0.88                    |
| SLF0728T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.180                         | 0.75                    |
| SLF0728T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.240                         | 0.65                    |
| SLF0728T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.340                         | 0.54                    |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF0730 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm\%$ ) | TEST FREQUENCY<br>L(KHz) | DC RESISTANCE<br>( $\Omega$ ) $\pm 20\%$ | RATED CURRENT<br>(A) Max. |
|-----------------|--------------------------|--------------------------|--------------------------|------------------------------------------|---------------------------|
| SLF0730T-3R3M-S | 3.3                      | 20                       | 1                        | 0.023                                    | 1.8                       |
| SLF0730T-4R7M-S | 4.7                      | 20                       | 1                        | 0.036                                    | 1.6                       |
| SLF0730T-6R8M-S | 6.8                      | 20                       | 1                        | 0.041                                    | 1.5                       |
| SLF0730T-100M-S | 10                       | 20                       | 1                        | 0.053                                    | 1.3                       |
| SLF0730T-150M-S | 15                       | 20                       | 1                        | 0.084                                    | 1                         |
| SLF0730T-220M-S | 22                       | 20                       | 1                        | 0.11                                     | 0.86                      |
| SLF0730T-330M-S | 33                       | 20                       | 1                        | 0.16                                     | 0.65                      |
| SLF0730T-470M-S | 47                       | 20                       | 1                        | 0.24                                     | 0.57                      |
| SLF0730T-680M-S | 68                       | 20                       | 1                        | 0.31                                     | 0.49                      |
| SLF0730T-101M-S | 100                      | 20                       | 1                        | 0.45                                     | 0.35                      |

IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm 20\%$ | RATED CURRENT<br>(A)Max |
|-------------------|--------------------------|-------------------|--------------------------------|-------------------------|
| SLF0730T-3R3 □ -N | 3.3                      | 0.5V 1KHZ         | 0.023                          | 1.8                     |
| SLF0730T-4R7 □ -N | 4.7                      | 0.5V 1KHZ         | 0.036                          | 1.6                     |
| SLF0730T-6R8 □ -N | 6.8                      | 0.5V 1KHZ         | 0.041                          | 1.5                     |
| SLF0730T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.053                          | 1.3                     |
| SLF0730T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.084                          | 1.0                     |
| SLF0730T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.11                           | 0.86                    |
| SLF0730T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.16                           | 0.65                    |
| SLF0730T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.24                           | 0.57                    |
| SLF0730T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.31                           | 0.49                    |
| SLF0730T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.45                           | 0.35                    |

NOTE : □ -tolerance M= $\pm 20\%$

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF0732 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST FREQUENCY<br>L(KHz) | DC RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED CURRENT<br>(A) Max. |
|-----------------|--------------------------|-------------------------|--------------------------|-----------------------------------------|---------------------------|
| SLF0732T-3R3M-S | 3.3                      | 20                      | 1                        | 0.023                                   | 1.9                       |
| SLF0732T-4R7M-S | 4.7                      | 20                      | 1                        | 0.036                                   | 1.7                       |
| SLF0732T-6R8M-S | 6.8                      | 20                      | 1                        | 0.041                                   | 1.6                       |
| SLF0732T-100M-S | 10                       | 20                      | 1                        | 0.053                                   | 1.4                       |
| SLF0732T-150M-S | 15                       | 20                      | 1                        | 0.075                                   | 1.1                       |
| SLF0732T-220M-S | 22                       | 20                      | 1                        | 0.11                                    | 0.96                      |
| SLF0732T-330M-S | 33                       | 20                      | 1                        | 0.16                                    | 0.75                      |
| SLF0732T-470M-S | 47                       | 20                      | 1                        | 0.24                                    | 0.67                      |
| SLF0732T-680M-S | 68                       | 20                      | 1                        | 0.31                                    | 0.59                      |
| SLF0732T-101M-S | 100                      | 20                      | 1                        | 0.45                                    | 0.45                      |
| SLF0732T-151M-S | 150                      | 20                      | 1                        | 0.65                                    | 0.37                      |
| SLF0732T-221M-S | 220                      | 20                      | 1                        | 1.05                                    | 0.29                      |
| SLF0732T-331M-S | 330                      | 20                      | 1                        | 1.67                                    | 0.22                      |
| SLF0732T-471M-S | 470                      | 20                      | 1                        | 2.05                                    | 0.2                       |
| SLF0732T-681M-S | 680                      | 20                      | 1                        | 3.15                                    | 0.16                      |
| SLF0732T-102M-S | 1000                     | 20                      | 1                        | 4.78                                    | 0.13                      |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | RATED CURRENT<br>(A)Max |
|-------------------|--------------------------|-------------------|-------------------------------|-------------------------|
| SLF0732T-2R2 □ -N | 2.2                      | 0.5V 1KHZ         | 0.018                         | 2.1                     |
| SLF0732T-3R3 □ -N | 3.3                      | 0.5V 1KHZ         | 0.023                         | 1.9                     |
| SLF0732T-4R7 □ -N | 4.7                      | 0.5V 1KHZ         | 0.036                         | 1.7                     |
| SLF0732T-6R8 □ -N | 6.8                      | 0.5V 1KHZ         | 0.041                         | 1.6                     |
| SLF0732T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.053                         | 1.4                     |
| SLF0732T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.075                         | 1.1                     |
| SLF0732T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.11                          | 0.96                    |
| SLF0732T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.16                          | 0.75                    |
| SLF0732T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.24                          | 0.67                    |
| SLF0732T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.31                          | 0.59                    |
| SLF0732T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.45                          | 0.45                    |
| SLF0732T-151 □ -N | 150                      | 0.5V 1KHZ         | 0.65                          | 0.37                    |
| SLF0732T-221 □ -N | 220                      | 0.5V 1KHZ         | 1.05                          | 0.29                    |
| SLF0732T-331 □ -N | 330                      | 0.5V 1KHZ         | 1.67                          | 0.22                    |
| SLF0732T-471 □ -N | 470                      | 0.5V 1KHZ         | 2.05                          | 0.2                     |
| SLF0732T-681 □ -N | 680                      | 0.5V 1KHZ         | 3.15                          | 0.16                    |
| SLF0732T-102 □ -N | 1000                     | 0.5V 1KHZ         | 4.78                          | 0.13                    |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF0745 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST<br>FREQUENCY<br>L(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|-------------------------|-----------------------------|--------------------------------------------|------------------------------|-------------------|
| SLF0745T-3R3M-S | 3.3                      | 20                      | I                           | 0.02                                       | 2.5                          | 2.3               |
| SLF0745T-4R7M-S | 4.7                      | 20                      | I                           | 0.03                                       | 2                            | 2.1               |
| SLF0745T-6R8M-S | 6.8                      | 20                      | I                           | 0.039                                      | 1.7                          | 1.74              |
| SLF0745T-100M-S | 10                       | 20                      | I                           | 0.036                                      | 1.3                          | 1.78              |
| SLF0745T-150M-S | 15                       | 20                      | I                           | 0.052                                      | 1.1                          | 1.53              |
| SLF0745T-220M-S | 22                       | 20                      | I                           | 0.061                                      | 0.9                          | 1.34              |
| SLF0745T-330M-S | 33                       | 20                      | I                           | 0.096                                      | 0.82                         | 1.09              |
| SLF0745T-470M-S | 47                       | 20                      | I                           | 0.125                                      | 0.75                         | 0.92              |
| SLF0745T-680M-S | 68                       | 20                      | I                           | 0.175                                      | 0.6                          | 0.77              |
| SLF0745T-101M-S | 100                      | 20                      | I                           | 0.25                                       | 0.5                          | 0.65              |
| SLF0745T-151M-S | 150                      | 20                      | I                           | 0.34                                       | 0.4                          | 0.55              |
| SLF0745T-221M-S | 220                      | 20                      | I                           | 0.52                                       | 0.33                         | 0.45              |
| SLF0745T-331M-S | 330                      | 20                      | I                           | 0.74                                       | 0.25                         | 0.37              |
| SLF0745T-471M-S | 470                      | 20                      | I                           | 1.05                                       | 0.22                         | 0.31              |
| SLF0745T-681M-S | 680                      | 20                      | I                           | 1.48                                       | 0.2                          | 0.27              |
| SLF0745T-102M-S | 1000                     | 20                      | I                           | 2.28                                       | 0.14                         | 0.25              |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Itemp current : Value obtained when current flows and the temperature has risen to 20°C.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|-------------------|--------------------------|-------------------|-------------------------------|---------------|-------------------|
| SLF0745T-3R3 □ -N | 3.3                      | 0.5V 1KHZ         | 0.02                          | 2.5           | 2.3               |
| SLF0745T-4R7 □ -N | 4.7                      | 0.5V 1KHZ         | 0.03                          | 2             | 2.1               |
| SLF0745T-6R8 □ -N | 6.8                      | 0.5V 1KHZ         | 0.039                         | 1.7           | 1.74              |
| SLF0745T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.036                         | 1.3           | 1.78              |
| SLF0745T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.052                         | 1.1           | 1.53              |
| SLF0745T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.061                         | 0.9           | 1.34              |
| SLF0745T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.096                         | 0.82          | 1.09              |
| SLF0745T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.125                         | 0.75          | 0.92              |
| SLF0745T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.175                         | 0.6           | 0.77              |
| SLF0745T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.25                          | 0.5           | 0.65              |
| SLF0745T-151 □ -N | 150                      | 0.5V 1KHZ         | 0.34                          | 0.4           | 0.55              |
| SLF0745T-221 □ -N | 220                      | 0.5V 1KHZ         | 0.52                          | 0.33          | 0.45              |
| SLF0745T-331 □ -N | 330                      | 0.5V 1KHZ         | 0.74                          | 0.25          | 0.37              |
| SLF0745T-471 □ -N | 470                      | 0.5V 1KHZ         | 1.05                          | 0.22          | 0.31              |
| SLF0745T-681 □ -N | 680                      | 0.5V 1KHZ         | 1.48                          | 0.2           | 0.27              |
| SLF0745T-102 □ -N | 1000                     | 0.5V 1KHZ         | 2.28                          | 0.14          | 0.25              |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF1045 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST<br>FREQUENCY<br>L(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|-------------------------|-----------------------------|--------------------------------------------|------------------------------|-------------------|
| SLF1045T-100M-S | 10                       | 20                      | 1                           | 0.0364                                     | 3                            | 2.5               |
| SLF1045T-150M-S | 15                       | 20                      | 1                           | 0.0472                                     | 2.4                          | 2.2               |
| SLF1045T-220M-S | 22                       | 20                      | 1                           | 0.0591                                     | 2.1                          | 1.9               |
| SLF1045T-330M-S | 33                       | 20                      | 1                           | 0.0815                                     | 1.6                          | 1.7               |
| SLF1045T-470M-S | 47                       | 20                      | 1                           | 0.1                                        | 1.4                          | 1.5               |
| SLF1045T-680M-S | 68                       | 20                      | 1                           | 0.14                                       | 1.2                          | 1.3               |
| SLF1045T-101M-S | 100                      | 20                      | 1                           | 0.2                                        | 1                            | 1.1               |
| SLF1045T-151M-S | 150                      | 20                      | 1                           | 0.35                                       | 0.79                         | 0.81              |
| SLF1045T-221M-S | 220                      | 20                      | 1                           | 0.47                                       | 0.65                         | 0.7               |
| SLF1045T-331M-S | 330                      | 20                      | 1                           | 0.68                                       | 0.54                         | 0.58              |
| SLF1045T-471M-S | 470                      | 20                      | 1                           | 1.03                                       | 0.47                         | 0.47              |
| SLF1045T-681M-S | 680                      | 20                      | 1                           | 1.6                                        | 0.38                         | 0.38              |
| SLF1045T-102M-S | 1000                     | 20                      | 1                           | 2.8                                        | 0.32                         | 0.29              |
| SLF1045T-152M-S | 1500                     | 20                      | 1                           | 3.4                                        | 0.22                         | 0.26              |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Itemp current : Value obtained when current flows and the temperature has risen to 30°C.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|-------------------|--------------------------|-------------------|-------------------------------|---------------|-------------------|
| SLF1045T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.0364                        | 3             | 2.5               |
| SLF1045T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.0472                        | 2.4           | 2.2               |
| SLF1045T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.0591                        | 2.1           | 1.9               |
| SLF1045T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.0815                        | 1.6           | 1.7               |
| SLF1045T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.1                           | 1.4           | 1.5               |
| SLF1045T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.14                          | 1.2           | 1.3               |
| SLF1045T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.2                           | 1             | 1.1               |
| SLF1045T-151 □ -N | 150                      | 0.5V 1KHZ         | 0.35                          | 0.79          | 0.81              |
| SLF1045T-221 □ -N | 220                      | 0.5V 1KHZ         | 0.47                          | 0.65          | 0.7               |
| SLF1045T-331 □ -N | 330                      | 0.5V 1KHZ         | 0.68                          | 0.54          | 0.58              |
| SLF1045T-471 □ -N | 470                      | 0.5V 1KHZ         | 1.03                          | 0.47          | 0.47              |
| SLF1045T-681 □ -N | 680                      | 0.5V 1KHZ         | 1.6                           | 0.38          | 0.38              |
| SLF1045T-102 □ -N | 1000                     | 0.5V 1KHZ         | 2.8                           | 0.32          | 0.29              |
| SLF1045T-152 □ -N | 1500                     | 0.5V 1KHZ         | 3.4                           | 0.22          | 0.26              |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF1255 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST<br>FREQUENCY<br>(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|-------------------------|----------------------------|--------------------------------------------|------------------------------|-------------------|
| SLF1255T-6R0M-S | 6                        | 20                      | I                          | 0.0164                                     | 3.6                          | 4.9               |
| SLF1255T-100M-S | 10                       | 20                      | I                          | 0.0215                                     | 3.4                          | 4.3               |
| SLF1255T-150M-S | 15                       | 20                      | I                          | 0.0259                                     | 2.8                          | 3.9               |
| SLF1255T-220M-S | 22                       | 20                      | I                          | 0.0338                                     | 2.3                          | 3.4               |
| SLF1255T-330M-S | 33                       | 20                      | I                          | 0.0415                                     | 1.9                          | 3.1               |
| SLF1255T-470M-S | 47                       | 20                      | I                          | 0.0618                                     | 1.6                          | 2.5               |
| SLF1255T-680M-S | 68                       | 20                      | I                          | 0.0832                                     | 1.3                          | 2.2               |
| SLF1255T-101M-S | 100                      | 20                      | I                          | 0.117                                      | 1.1                          | 1.8               |
| SLF1255T-151M-S | 150                      | 20                      | I                          | 0.19                                       | 0.88                         | 1.4               |
| SLF1255T-221M-S | 220                      | 20                      | I                          | 0.27                                       | 0.72                         | 1.2               |
| SLF1255T-331M-S | 330                      | 20                      | I                          | 0.41                                       | 0.59                         | I                 |
| SLF1255T-471M-S | 470                      | 20                      | I                          | 0.52                                       | 0.49                         | 0.88              |
| SLF1255T-681M-S | 680                      | 20                      | I                          | 0.76                                       | 0.43                         | 0.73              |
| SLF1255T-102M-S | 1000                     | 20                      | I                          | 1.12                                       | 0.34                         | 0.6               |
| SLF1255T-152M-S | 1500                     | 20                      | I                          | 1.73                                       | 0.29                         | 0.48              |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Itemp current : Value obtained when current flows and the temperature has risen to 30°C.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|-------------------|--------------------------|-------------------|-------------------------------|---------------|-------------------|
| SLF1255T-6R0 □ -N | 6                        | 0.5V 1KHZ         | 0.0164                        | 3.6           | 4.9               |
| SLF1255T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.0215                        | 3.4           | 4.3               |
| SLF1255T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.0259                        | 2.8           | 3.9               |
| SLF1255T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.0338                        | 2.3           | 3.4               |
| SLF1255T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.0415                        | 1.9           | 3.1               |
| SLF1255T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.0618                        | 1.6           | 2.5               |
| SLF1255T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.0832                        | 1.3           | 2.2               |
| SLF1255T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.117                         | 1.1           | 1.8               |
| SLF1255T-151 □ -N | 150                      | 0.5V 1KHZ         | 0.19                          | 0.88          | 1.4               |
| SLF1255T-221 □ -N | 220                      | 0.5V 1KHZ         | 0.27                          | 0.72          | 1.2               |
| SLF1255T-331 □ -N | 330                      | 0.5V 1KHZ         | 0.41                          | 0.59          | I                 |
| SLF1255T-471 □ -N | 470                      | 0.5V 1KHZ         | 0.52                          | 0.49          | 0.88              |
| SLF1255T-681 □ -N | 680                      | 0.5V 1KHZ         | 0.76                          | 0.43          | 0.73              |
| SLF1255T-102 □ -N | 1000                     | 0.5V 1KHZ         | 1.12                          | 0.34          | 0.6               |
| SLF1255T-152 □ -N | 1500                     | 0.5V 1KHZ         | 1.73                          | 0.29          | 0.48              |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLFI265 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm$ %) | TEST<br>FREQUENCY<br>(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm$ 20% | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|-------------------------|----------------------------|--------------------------------------------|------------------------------|-------------------|
| SLFI265T-2R0M-S | 2                        | 30                      | 1                          | 0.0117                                     | 10                           | 6.2               |
| SLFI265T-4R2M-S | 4.2                      | 30                      | 1                          | 0.015                                      | 7.3                          | 5.5               |
| SLFI265T-7R0M-S | 7                        | 30                      | 1                          | 0.0177                                     | 5.7                          | 5                 |
| SLFI265T-100M-S | 10                       | 20                      | 1                          | 0.0202                                     | 5                            | 4.8               |
| SLFI265T-150M-S | 15                       | 20                      | 1                          | 0.0237                                     | 4.2                          | 4.4               |
| SLFI265T-220M-S | 22                       | 20                      | 1                          | 0.0316                                     | 3.5                          | 3.8               |
| SLFI265T-330M-S | 33                       | 20                      | 1                          | 0.0406                                     | 2.8                          | 3.4               |
| SLFI265T-470M-S | 47                       | 20                      | 1                          | 0.0578                                     | 2.4                          | 2.8               |
| SLFI265T-680M-S | 68                       | 20                      | 1                          | 0.0787                                     | 2                            | 2.4               |
| SLFI265T-101M-S | 100                      | 20                      | 1                          | 0.123                                      | 1.6                          | 1.9               |
| SLFI265T-221M-S | 220                      | 20                      | 1                          | 0.273                                      | 1                            | 1.2               |

IDC current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Itemp current : Value obtained when current flows and the temperature has risen to 40°C.

Test equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm$ 20% | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|-------------------|--------------------------|-------------------|-------------------------------|---------------|-------------------|
| SLFI265T-2R0 □ -N | 2                        | 0.5V 1KHZ         | 0.0117                        | 10            | 6.2               |
| SLFI265T-4R2 □ -N | 4.2                      | 0.5V 1KHZ         | 0.015                         | 7.3           | 5.5               |
| SLFI265T-7R0 □ -N | 7                        | 0.5V 1KHZ         | 0.0177                        | 5.7           | 5                 |
| SLFI265T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.0202                        | 5             | 4.8               |
| SLFI265T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.0237                        | 4.2           | 4.4               |
| SLFI265T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.0316                        | 3.5           | 3.8               |
| SLFI265T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.0406                        | 2.8           | 3.4               |
| SLFI265T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.0578                        | 2.4           | 2.8               |
| SLFI265T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.0787                        | 2             | 2.4               |
| SLFI265T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.123                         | 1.6           | 1.9               |
| SLFI265T-221 □ -N | 220                      | 0.5V 1KHZ         | 0.273                         | 1             | 1.2               |

NOTE : □ -tolerance M= $\pm$ 20%

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## ELECTRICAL CHARACTERISTICS SLF1275 SERIES

| PART NO.        | INDUCTANCE<br>( $\mu$ H) | TOLERANCE<br>( $\pm\%$ ) | TEST<br>FREQUENCY<br>(KHz) | DC<br>RESISTANCE<br>( $\Omega$ ) $\pm 20\%$ | RATED<br>CURRENT<br>(A) Max. | ITEMP<br>(A) Max. |
|-----------------|--------------------------|--------------------------|----------------------------|---------------------------------------------|------------------------------|-------------------|
| SLF1275T-1R2M-S | 1.2                      | 30                       | I                          | 0.0069                                      | 13                           | 8.2               |
| SLF1275T-2R7M-S | 2.7                      | 30                       | I                          | 0.0094                                      | 10                           | 7                 |
| SLF1275T-3R9M-S | 3.9                      | 30                       | I                          | 0.0104                                      | 9                            | 6.7               |
| SLF1275T-5R6M-S | 5.6                      | 30                       | I                          | 0.0116                                      | 7.8                          | 6.3               |
| SLF1275T-6R8M-S | 6.8                      | 30                       | I                          | 0.0131                                      | 7.2                          | 5.9               |
| SLF1275T-100M-S | 10                       | 20                       | I                          | 0.0156                                      | 5.5                          | 5.4               |
| SLF1275T-150M-S | 15                       | 20                       | I                          | 0.0184                                      | 4.7                          | 5                 |
| SLF1275T-220M-S | 22                       | 20                       | I                          | 0.0263                                      | 4                            | 4                 |
| SLF1275T-330M-S | 33                       | 20                       | I                          | 0.0395                                      | 3.2                          | 3.4               |
| SLF1275T-470M-S | 47                       | 20                       | I                          | 0.0528                                      | 2.7                          | 3                 |
| SLF1275T-680M-S | 68                       | 20                       | I                          | 0.0778                                      | 2                            | 2.4               |
| SLF1275T-101M-S | 100                      | 20                       | I                          | 0.125                                       | 1.9                          | 1.9               |
| SLF1275T-151M-S | 150                      | 20                       | I                          | 0.175                                       | 1.5                          | 1.6               |
| SLF1275T-221M-S | 220                      | 20                       | I                          | 0.258                                       | 1.3                          | 1.3               |

IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 10%.

Itemp Current : Value obtained when current flows and the temperature has risen to 40°C.

Test Equipment Inductance : HP4192A LF Impedance Analyzer or Equivalent (Test Frequency : 1KHz/0.5V)

RDC : SC-7401 Digital Multimeter ,or Equivalent

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | TEST<br>Frequency | RDC<br>( $\Omega$ ) $\pm 20\%$ | IDC<br>(A)Max | ITEMP<br>(A) Max. |
|-------------------|--------------------------|-------------------|--------------------------------|---------------|-------------------|
| SLF1275T-1R2T-N   | 1.2                      | 0.5V 1KHZ         | 0.0069                         | 13            | 8.2               |
| SLF1275T-2R7T-N   | 2.7                      | 0.5V 1KHZ         | 0.0094                         | 10            | 7                 |
| SLF1275T-3R9T-N   | 3.9                      | 0.5V 1KHZ         | 0.0104                         | 9             | 6.7               |
| SLF1275T-5R6T-N   | 5.6                      | 0.5V 1KHZ         | 0.0116                         | 7.8           | 6.3               |
| SLF1275T-6R8T-N   | 6.8                      | 0.5V 1KHZ         | 0.0131                         | 7.2           | 5.9               |
| SLF1275T-100 □ -N | 10                       | 0.5V 1KHZ         | 0.0156                         | 5.5           | 5.4               |
| SLF1275T-150 □ -N | 15                       | 0.5V 1KHZ         | 0.0184                         | 4.7           | 5                 |
| SLF1275T-220 □ -N | 22                       | 0.5V 1KHZ         | 0.0263                         | 4             | 4                 |
| SLF1275T-330 □ -N | 33                       | 0.5V 1KHZ         | 0.0395                         | 3.2           | 3.4               |
| SLF1275T-470 □ -N | 47                       | 0.5V 1KHZ         | 0.0528                         | 2.7           | 3                 |
| SLF1275T-680 □ -N | 68                       | 0.5V 1KHZ         | 0.0778                         | 2             | 2.4               |
| SLF1275T-101 □ -N | 100                      | 0.5V 1KHZ         | 0.125                          | 1.9           | 1.9               |
| SLF1275T-151 □ -N | 150                      | 0.5V 1KHZ         | 0.175                          | 1.5           | 1.6               |
| SLF1275T-221 □ -N | 220                      | 0.5V 1KHZ         | 0.258                          | 1.3           | 1.3               |

NOTE : □ -tolerance M= $\pm 20\%$  / T= $\pm 30\%$

1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

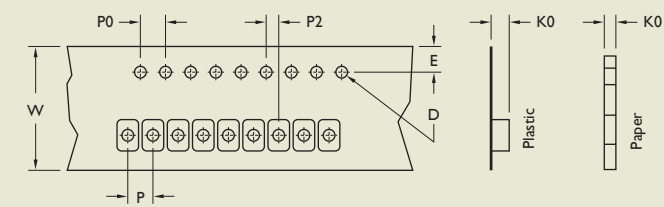
2.Itemp Current : Value obtained when current flows and the temperature has risen to 25°C.

3.40°C rise typ.at Irms.

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)

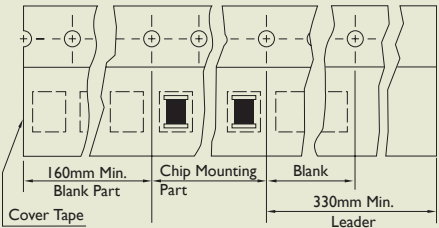


TAPE DIMENSIONS

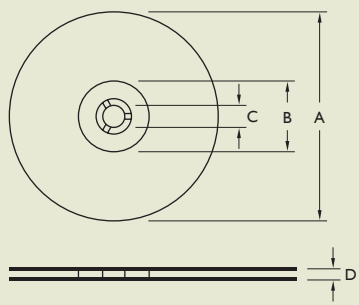


TAPE MATERIAL

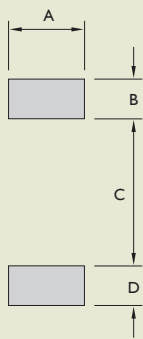
Camer Tape : Polystyrene      Cover Type : Polyethylene



REEL DIMENSIONS



RECOMMENDED PATTERN



| Dimensions : mm |                 |      |      |    |    |    |    |                     |     |     |     |                 |     |    |      |                   |
|-----------------|-----------------|------|------|----|----|----|----|---------------------|-----|-----|-----|-----------------|-----|----|------|-------------------|
| TYPE            | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |     |     |     | REEL DIMENSIONS |     |    |      | QUANTITY PCS/REEL |
|                 | K0              | D    | E    | W  | P  | P0 | P2 | A                   | B   | C   | D   | A               | B   | C  | D    |                   |
| SLF0628         | 3.5             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 2.2                 | 1.5 | 4   | 1.5 | 330             | 100 | 13 | 17.4 | 1000              |
| SLF0728         | 3.5             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 2.2                 | 1.5 | 4.9 | 1.5 | 330             | 100 | 13 | 17.4 | 1000              |
| SLF0730         | 3.7             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 2.2                 | 1.5 | 4.9 | 1.5 | 330             | 100 | 13 | 17.4 | 1000              |
| SLF0732         | 4               | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 2.2                 | 1.5 | 4.9 | 1.5 | 330             | 100 | 13 | 17.4 | 1000              |
| SLF0745         | 5.5             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 2.2                 | 1.5 | 4.9 | 1.5 | 330             | 100 | 13 | 17.4 | 1000              |
| SLFI045         | 5.5             | 1.55 | 1.75 | 24 | 24 | 4  | 2  | 3.2                 | 2.5 | 5.6 | 2.5 | 330             | 100 | 13 | 24.4 | 500               |
| SLFI255         | 6.5             | 1.55 | 1.75 | 24 | 24 | 4  | 2  | 3.2                 | 2.5 | 8.6 | 2.5 | 330             | 100 | 13 | 24.4 | 500               |
| SLFI265         | 7.5             | 1.55 | 1.75 | 24 | 24 | 4  | 2  | 3.2                 | 2.5 | 8.6 | 2.5 | 330             | 100 | 13 | 24.4 | 500               |
| SLFI275         | 8.5             | 1.55 | 1.75 | 24 | 24 | 4  | 2  | 3.2                 | 2.5 | 8.6 | 2.5 | 330             | 100 | 13 | 24.4 | 500               |



## SLF SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

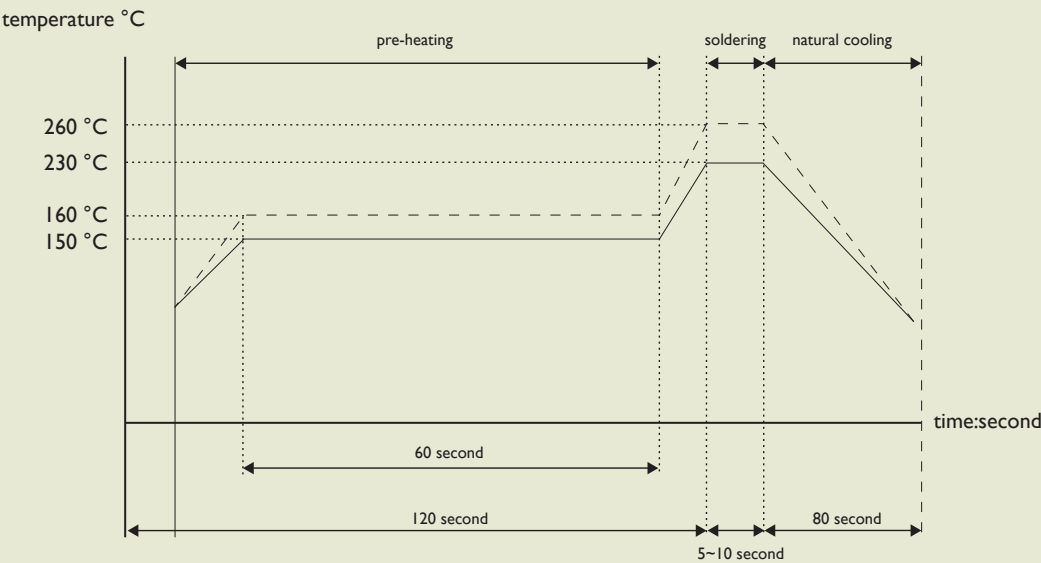
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                               | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
|-------|------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------|-------------|---|-------------|----|---|------------|---|---|------------|----|---|------------|---|
| I-2-1 | Temperature Shock                  | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>L Change : within $\pm 30\%$<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to $-55^{\circ}\text{C}$<br>30Min. Exposure to $125^{\circ}\text{C}$<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                 |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-2 | Temperature Cycle                  |                                                                                                                      | One Cycle <table><tr><th>Step</th><th>Temperature (<math>^{\circ}\text{C}</math>)</th><th>Time (Min.)</th></tr><tr><td>1</td><td><math>-25 \pm 3</math></td><td>30</td></tr><tr><td>2</td><td><math>25 \pm 2</math></td><td>3</td></tr><tr><td>3</td><td><math>85 \pm 3</math></td><td>30</td></tr><tr><td>4</td><td><math>25 \pm 2</math></td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.) | 1 | $-25 \pm 3$ | 30 | 2 | $25 \pm 2$ | 3 | 3 | $85 \pm 3$ | 30 | 4 | $25 \pm 2$ | 3 |
| Step  | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.)                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 1     | $-25 \pm 3$                        | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 2     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 3     | $85 \pm 3$                         | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 4     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-3 | Humidity Resistance                |                                                                                                                      | Temperature : $40 \pm 2^{\circ}\text{C}$<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                               |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-4 | High Temperature Resistance        |                                                                                                                      | Temperature : $85 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                 |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-5 | Low Temperature Resistance         |                                                                                                                      | Temperature : $-25 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                                    |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



|                       |       |
|-----------------------|-------|
| for: lead solder      | ————— |
| for: lead-free solder | ----- |

Low Profile Low Power  
Low & high Current

## APPLICATIONS

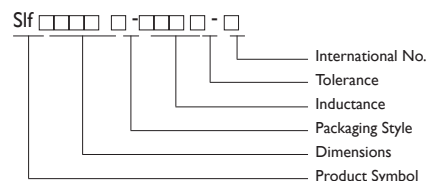
Operating Temperature: -20°C~85°C

## FEATURES

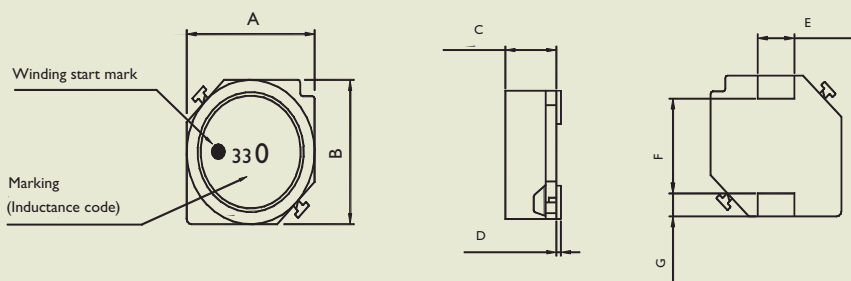
- Packaging: T : Tape and Reel
- Tolerance : M :  $\pm 20\%$
- Note: YAGEO has released lead-free products of SLF Series and Internal No. will be changed to "N" as identification. Ex. SLF1055T-100M-N



## PRODUCT IDENTIFICATION



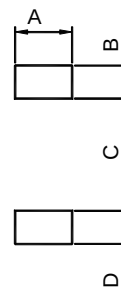
## SHAPES AND DIMENSIONS



Dimensions : mm

| A        | B        | C       | D       | E    | F      | G      |
|----------|----------|---------|---------|------|--------|--------|
| 10.1±0.3 | 10.1±0.3 | 5.5±0.3 | 0.15TYP | 3TYP | 6.0TYP | 2.0TYP |

## RECOMMENDED PATTERN



Dimensions : mm

| A   | B   | C   | D   |
|-----|-----|-----|-----|
| 3.2 | 2.5 | 5.6 | 2.5 |



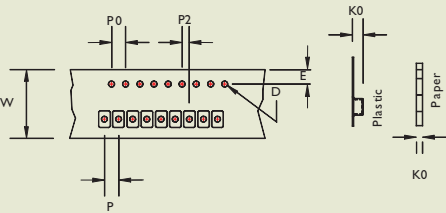
ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>(μH) | TOLERANCE<br>(±%) | TEST<br>FREQUENCY<br>l(KHz) | DC<br>RESISTANCE<br>(Ω) ± 20% | RATED<br>CURRENT<br>(A) Max. |
|-----------------|--------------------|-------------------|-----------------------------|-------------------------------|------------------------------|
| SLFI055T-100M-S | 10                 | 20                | 1                           | 40                            | 3.5                          |
| SLFI055T-330M-S | 33                 | 20                | 1                           | 85                            | 2.1                          |

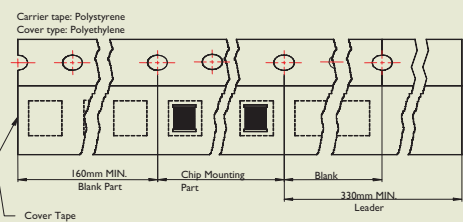
- Rated current:Value obtaned when DC current flows and the initial value of inductance has by 15%
- Test equipment Inductance: HP4192A LF impedance analyzer or equivalent(Test frequency: 1KHz/0.5V)
- RDC: CH502BC Digital multimeter, or equivalent.

PACKAGING SPECIFICATIONS

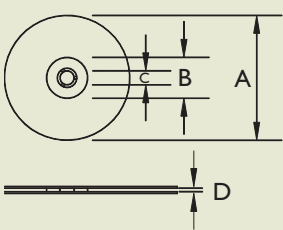
Tape Dimensions



Tape Material



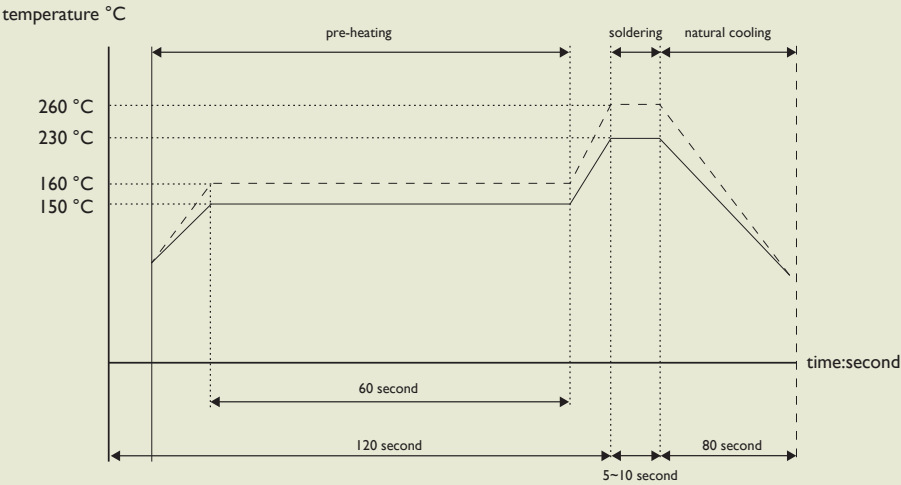
Reel Dimensions



| TYPE    | TAPE DIMENSIONS |      |      |    |    |    |    | REEL DIMENSIONS |     |    |      | QUANTITY |
|---------|-----------------|------|------|----|----|----|----|-----------------|-----|----|------|----------|
|         | K0              | D    | E    | W  | P  | P0 | P2 | A               | B   | C  | D    | PCS/REEL |
| SLFI055 | 6.5             | 1.55 | 1.75 | 24 | 24 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500      |

RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder —————  
for: lead-free solder - - - - -

# SDT0402 Series

## SMD Power Inductors

### APPLICATIONS

Board mounted DC-DC converters

Miniature power supplies, and voltage multiplying circuits.

These inductors are designed for a wide variety of applications including board mounted DC-DC converters, miniature power supplies, and voltage multiplying circuits. They function equally well in filter and smoothing circuit applications.

The Yageo SDT Series represents the ultimate in cost effective miniature power inductors. They are constructed of materials specially developed for surface mount applications to ensure the best possible reliability and ease of using and handling.

Because of their " swinging " inductance vs. current characteristics, the SDT0402 Series can be used as ultra high L inductors at zero or low current.

### SPECIFICATIONS

| PART NO.        | INDUCTANCE<br>@100KHz, 0 A dc<br>( $\mu$ H $\pm$ 20%) | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | INDUCTANCE<br>RATING * | CURRENT<br>RATING **<br>(A) | ENERGY<br>STORAGE<br>( $\mu$ Joules) Max. | SWITCHING<br>FREQUENCY<br>Max. | SRF<br>(MHz) |
|-----------------|-------------------------------------------------------|---------------------------------------|------------------------|-----------------------------|-------------------------------------------|--------------------------------|--------------|
| SDT0402T-1R0M-S | 1.0                                                   | 0.045                                 | 0.60                   | 2.0                         | 1.8                                       | 1 MHz                          | 157          |
| SDT0402T-1R5M-S | 1.5                                                   | 0.050                                 | 0.80                   | 1.9                         | 1.8                                       | 1 MHz                          | 108          |
| SDT0402T-2R2M-S | 2.2                                                   | 0.060                                 | 0.90                   | 1.5                         | 1.8                                       | 1 MHz                          | 92           |
| SDT0402T-3R3M-S | 3.3                                                   | 0.070                                 | 1.5                    | 1.2                         | 1.4                                       | 1 MHz                          | 69           |
| SDT0402T-4R7M-S | 4.7                                                   | 0.080                                 | 2.0                    | 1.2                         | 1.6                                       | 1 MHz                          | 59           |
| SDT0402T-6R8M-S | 6.8                                                   | 0.085                                 | 3.0                    | 1.0                         | 1.9                                       | 1 MHz                          | 51           |
| SDT0402T-100M-S | 10                                                    | 0.095                                 | 5.0                    | 0.7                         | 1.2                                       | 1 MHz                          | 33           |
| SDT0402T-150M-S | 15                                                    | 0.135                                 | 6.0                    | 0.6                         | 1.1                                       | 1 MHz                          | 26           |
| SDT0402T-220M-S | 22                                                    | 0.160                                 | 10                     | 0.5                         | 1.2                                       | 1 MHz                          | 20           |
| SDT0402T-330M-S | 33                                                    | 0.275                                 | 12                     | 0.45                        | 1.5                                       | 1 MHz                          | 17           |
| SDT0402T-470M-S | 47                                                    | 0.340                                 | 20                     | 0.34                        | 1.3                                       | 1 MHz                          | 12           |
| SDT0402T-680M-S | 68                                                    | 0.575                                 | 30                     | 0.29                        | 1.4                                       | 1 MHz                          | 11           |
| SDT0402T-101M-S | 100                                                   | 1.100                                 | 40                     | 0.24                        | 1.5                                       | 1 MHz                          | 9.4          |
| SDT0402T-151M-S | 150                                                   | 1.400                                 | 60                     | 0.20                        | 1.4                                       | 500 KHz                        | 6.7          |
| SDT0402T-221M-S | 220                                                   | 2.250                                 | 90                     | 0.17                        | 1.6                                       | 500 KHz                        | 6.1          |
| SDT0402T-331M-S | 330                                                   | 2.900                                 | 100                    | 0.16                        | 1.4                                       | 500 KHz                        | 4.7          |
| SDT0402T-471M-S | 470                                                   | 3.600                                 | 150                    | 0.14                        | 1.5                                       | 500 KHz                        | 3.85         |
| SDT0402T-681M-S | 680                                                   | 4.550                                 | 200                    | 0.12                        | 1.4                                       | 500 KHz                        | 3.1          |
| SDT0402T-102M-S | 1000                                                  | 8.100                                 | 400                    | 0.08                        | 1.4                                       | 500 KHz                        | 2.3          |

\* Measured at the rated current. Refer to curves below for more detail.

\*\* Average maximum allowable current. SDT Series inductors are designed for current spikes as high as 2X the current rating.

Operating Temperature Range -40°C to +85°C

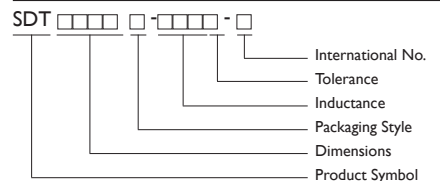
### FEATURES

Ultra high L and low current

Functions equally well in filter and smoothing circuit applications.

• Available in 2 sizes.

### PRODUCT IDENTIFICATION

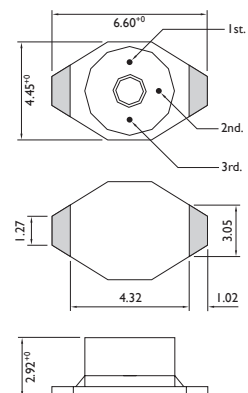


• Packaging: T: Tape and Reel

• Tolerance: M:  $\pm$ 20%

• Note: YAGEO will start to release SDT Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SDT0402T-1R0M-N

### SHAPES AND DIMENSIONS





## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>(uH) | RDC<br>(Ω)MAX | SRF<br>(MHz)typ | CURRENT<br>RATING<br>(A) | Inductan<br>CE<br>(uH) | MAX<br>ENERGY<br>(uJoules) | MAX<br>SWITCHIN<br>Frequency |
|-------------------|--------------------|---------------|-----------------|--------------------------|------------------------|----------------------------|------------------------------|
| SDT0402T-1R0 □ -N | 1                  | 0.045         | 157             | 2                        | 0.6                    | 1.8                        | 1MHz                         |
| SDT0402T-1R5 □ -N | 1.5                | 0.05          | 108             | 1.9                      | 0.8                    | 1.8                        | 1MHz                         |
| SDT0402T-2R2 □ -N | 2.2                | 0.06          | 92              | 1.5                      | 0.9                    | 1.8                        | 1MHz                         |
| SDT0402T-3R3 □ -N | 3.3                | 0.07          | 69              | 1.2                      | 1.5                    | 1.4                        | 1MHz                         |
| SDT0402T-4R7 □ -N | 4.7                | 0.08          | 59              | 1.2                      | 2                      | 1.6                        | 1MHz                         |
| SDT0402T-6R8 □ -N | 6.8                | 0.085         | 51              | 1                        | 3                      | 1.9                        | 1MHz                         |
| SDT0402T-100 □ -N | 10                 | 0.095         | 33              | 0.7                      | 5                      | 1.2                        | 1MHz                         |
| SDT0402T-150 □ -N | 15                 | 0.135         | 26              | 0.6                      | 6                      | 1.1                        | 1MHz                         |
| SDT0402T-220 □ -N | 22                 | 0.16          | 20              | 0.5                      | 10                     | 1.2                        | 1MHz                         |
| SDT0402T-330 □ -N | 33                 | 0.275         | 17              | 0.45                     | 12                     | 1.5                        | 1MHz                         |
| SDT0402T-470 □ -N | 47                 | 0.34          | 12              | 0.34                     | 20                     | 1.3                        | 1MHz                         |
| SDT0402T-680 □ -N | 68                 | 0.575         | 11              | 0.29                     | 30                     | 1.4                        | 1MHz                         |
| SDT0402T-101 □ -N | 100                | 1.1           | 9.4             | 0.24                     | 40                     | 1.5                        | 1MHz                         |
| SDT0402T-151 □ -N | 150                | 1.4           | 6.7             | 0.2                      | 60                     | 1.4                        | 500kHz                       |
| SDT0402T-221 □ -N | 220                | 2.25          | 6.1             | 0.17                     | 90                     | 1.6                        | 500kHz                       |
| SDT0402T-331 □ -N | 330                | 2.9           | 4.7             | 0.16                     | 100                    | 1.4                        | 500kHz                       |
| SDT0402T-471 □ -N | 470                | 3.6           | 3.85            | 0.14                     | 150                    | 1.5                        | 500kHz                       |
| SDT0402T-681 □ -N | 680                | 4.55          | 3.1             | 0.12                     | 200                    | 1.4                        | 500kHz                       |
| SDT0402T-102 □ -N | 1000               | 8.1           | 2.3             | 0.08                     | 400                    | 1.4                        | 500kHz                       |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

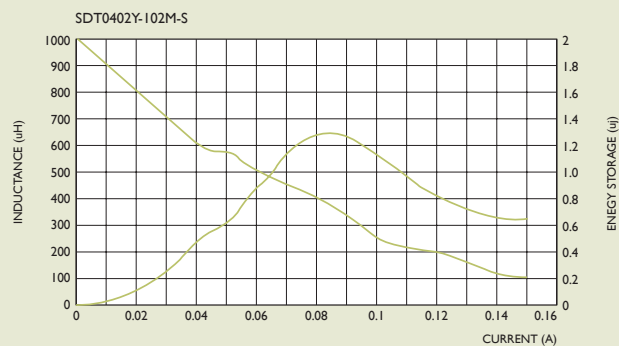
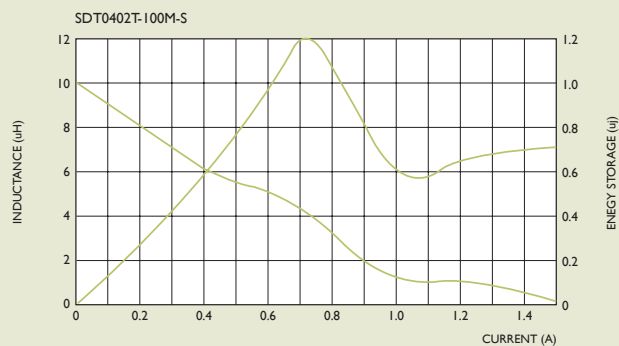
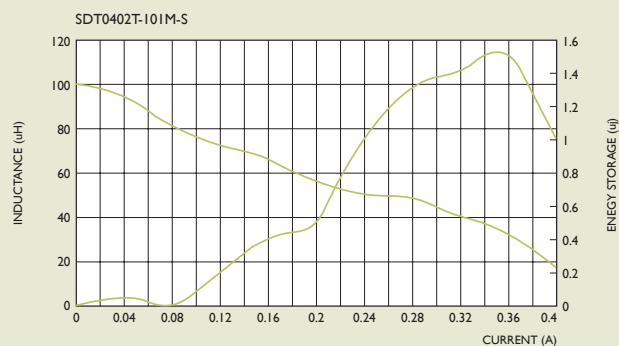
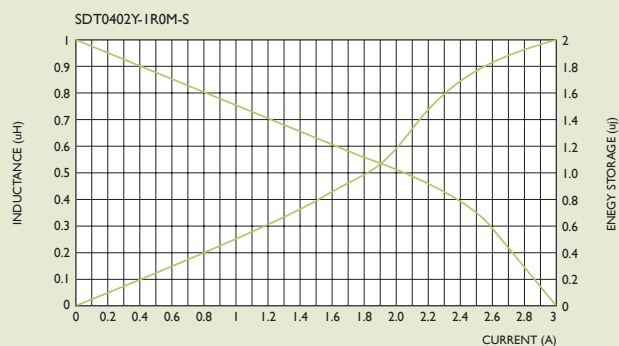
2. Inductance Rating: Measured at the rated current. SDT Series inductors are design for current

3. Current Rating: Average maximum allowable current. SDT Series inductors are design for current spikes as high as 2X the current rating; TEST FREQUENCY : 100 KHz/0.1V

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

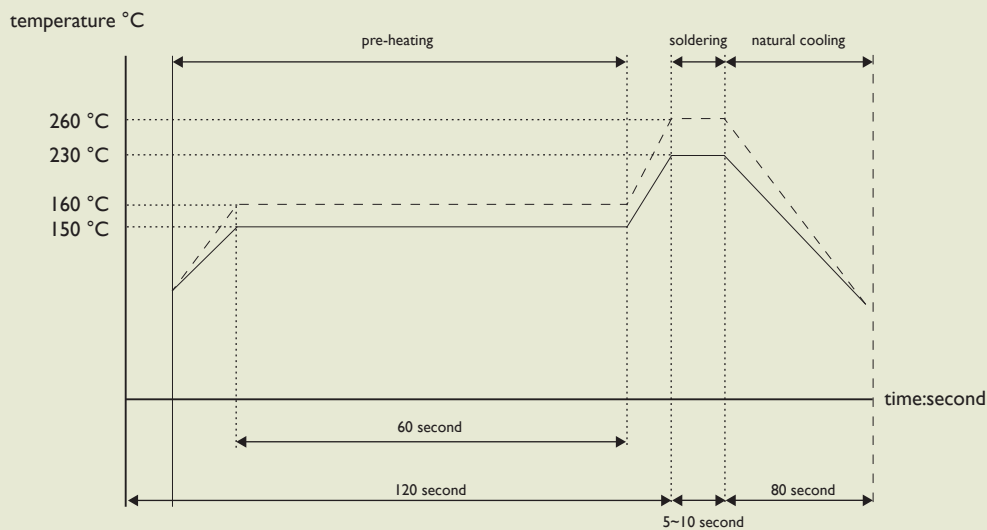


## TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT



## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder ————  
for: lead-free solder - - - - -

## SMD Power Inductors

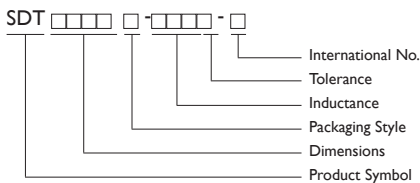
## SDT0804 Series



## FEATURES

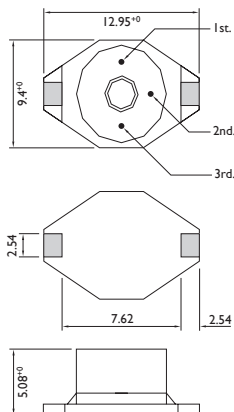
- Ultra high L and low current
- Functions equally well in filter and smoothing circuit applications.
- Available in 2 sizes.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SDT Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SDT0402T-IR0M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

## APPLICATIONS

Board mounted DC-DC converters

Miniature power supplies, and voltage multiplying circuits.

These inductors are designed for a wide variety of applications including board mounted DC-DC converters, miniature power supplies, and voltage multiplying circuits. They function equally well in filter and smoothing circuit applications.

The Yageo SDT Series represents the ultimate in cost effective miniature power inductors. They are constructed of materials specially developed for surface mount applications to ensure the best possible reliability and ease of use and handling.

## SPECIFICATIONS

## OPERATING PARAMETERS

| PART NO.        | INDUCTANCE<br>@100KHZ, 0 ADC<br>( $\mu$ H $\pm 20\%$ ) | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | SRF<br>TYP<br>(MHz) | INDUCTANCE<br>RATING*<br>( $\Omega$ H) | CURRENT<br>RATING**<br>(A) | ENERGY<br>STORAGE<br>( $\mu$ JOULES) Max. | SWITCHING<br>FREQUENCY<br>Max. |
|-----------------|--------------------------------------------------------|---------------------------------------|---------------------|----------------------------------------|----------------------------|-------------------------------------------|--------------------------------|
| SDT0804T-IR0M-S | 1.0                                                    | 0.025                                 | 60                  | 0.50                                   | 5.0                        | 9                                         | 1 MHz                          |
| SDT0804T-IR5M-S | 1.5                                                    | 0.030                                 | 55                  | 0.70                                   | 5.0                        | 12                                        | 1 MHz                          |
| SDT0804T-2R2M-S | 2.2                                                    | 0.035                                 | 55                  | 1.00                                   | 5.0                        | 15                                        | 1 MHz                          |
| SDT0804T-3R3M-S | 3.3                                                    | 0.040                                 | 50                  | 1.50                                   | 5.0                        | 16                                        | 1 MHz                          |
| SDT0804T-4R7M-S | 4.7                                                    | 0.045                                 | 45                  | 2.00                                   | 3.0                        | 10                                        | 1 MHz                          |
| SDT0804T-6R8M-S | 6.8                                                    | 0.050                                 | 40                  | 4.00                                   | 2.5                        | 14                                        | 1 MHz                          |
| SDT0804T-100M-S | 10                                                     | 0.055                                 | 35                  | 5.00                                   | 2.0                        | 11                                        | 1 MHz                          |
| SDT0804T-150M-S | 15                                                     | 0.060                                 | 25                  | 6.00                                   | 1.8                        | 12                                        | 1 MHz                          |
| SDT0804T-220M-S | 22                                                     | 0.084                                 | 22                  | 10                                     | 1.5                        | 11                                        | 1 MHz                          |
| SDT0804T-330M-S | 33                                                     | 0.090                                 | 18                  | 12                                     | 1.3                        | 13                                        | 1 MHz                          |
| SDT0804T-470M-S | 47                                                     | 0.11                                  | 16                  | 27                                     | 1.0                        | 13                                        | 1 MHz                          |
| SDT0804T-680M-S | 68                                                     | 0.15                                  | 12                  | 40                                     | 0.90                       | 17                                        | 1 MHz                          |
| SDT0804T-101M-S | 100                                                    | 0.29                                  | 9                   | 50                                     | 0.80                       | 15                                        | 1 MHz                          |
| SDT0804T-151M-S | 150                                                    | 0.36                                  | 8                   | 80                                     | 0.60                       | 15                                        | 500 KHz                        |
| SDT0804T-221M-S | 220                                                    | 0.39                                  | 6                   | 90                                     | 0.50                       | 10                                        | 500 KHz                        |
| SDT0804T-331M-S | 330                                                    | 0.73                                  | 5                   | 150                                    | 0.40                       | 13                                        | 500 KHz                        |
| SDT0804T-471M-S | 470                                                    | 0.88                                  | 4                   | 200                                    | 0.35                       | 13                                        | 500 KHz                        |
| SDT0804T-681M-S | 680                                                    | 1.15                                  | 3                   | 300                                    | 0.30                       | 13                                        | 500 KHz                        |
| SDT0804T-102M-S | 1000                                                   | 1.45                                  | 2.5                 | 420                                    | 0.25                       | 13                                        | 500 KHz                        |

\* Measured at the rated current. Refer to curves below for more detail.

\*\* Average maximum allowable current. SDT Series inductors are designed for current spikes as high as 2X the current rating.

Operating Temperature Range -40°C to +85°C



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>( $\mu$ H) | RDC<br>( $\Omega$ ) Max. | SRF<br>(MHz)TYP | CURRENT<br>RAGING<br>(A) | INDUCTANCE<br>CE<br>( $\mu$ H) | MAX<br>ENERGE<br>( $\mu$ JOULES) | MAX<br>SWITCHING<br>Frequency |
|-------------------|--------------------------|--------------------------|-----------------|--------------------------|--------------------------------|----------------------------------|-------------------------------|
| SDT0804T-1R0 □ -S | 1.0                      | 0.025                    | 60              | 5.0                      | 0.5                            | 9                                | 1 MHz                         |
| SDT0804T-1R5 □ -S | 1.5                      | 0.030                    | 55              | 5.0                      | 0.7                            | 12                               | 1 MHz                         |
| SDT0804T-2R2 □ -S | 2.2                      | 0.035                    | 55              | 5.0                      | 1                              | 15                               | 1 MHz                         |
| SDT0804T-3R3 □ -S | 3.3                      | 0.040                    | 50              | 5.0                      | 1.5                            | 16                               | 1 MHz                         |
| SDT0804T-4R7 □ -S | 4.7                      | 0.045                    | 45              | 3.0                      | 2                              | 10                               | 1 MHz                         |
| SDT0804T-6R8 □ -S | 6.8                      | 0.050                    | 40              | 2.5                      | 4                              | 14                               | 1 MHz                         |
| SDT0804T-100 □ -S | 10                       | 0.055                    | 35              | 2.0                      | 5                              | 11                               | 1 MHz                         |
| SDT0804T-150 □ -S | 15                       | 0.060                    | 25              | 1.8                      | 6                              | 12                               | 1 MHz                         |
| SDT0804T-220 □ -S | 22                       | 0.084                    | 22              | 1.5                      | 10                             | 11                               | 1 MHz                         |
| SDT0804T-330 □ -S | 33                       | 0.090                    | 18              | 1.3                      | 12                             | 13                               | 1 MHz                         |
| SDT0804T-470 □ -S | 47                       | 0.11                     | 16              | 1.0                      | 27                             | 13                               | 1 MHz                         |
| SDT0804T-680 □ -S | 68                       | 0.15                     | 12              | 0.90                     | 40                             | 17                               | 1 MHz                         |
| SDT0804T-101 □ -S | 100                      | 0.29                     | 9               | 0.80                     | 50                             | 15                               | 1 MHz                         |
| SDT0804T-151 □ -S | 150                      | 0.36                     | 8               | 0.60                     | 80                             | 15                               | 500 KHz                       |
| SDT0804T-221 □ -S | 220                      | 0.39                     | 6               | 0.50                     | 90                             | 10                               | 500 KHz                       |
| SDT0804T-331 □ -S | 330                      | 0.73                     | 5               | 0.40                     | 150                            | 13                               | 500 KHz                       |
| SDT0804T-471 □ -S | 470                      | 0.88                     | 4               | 0.35                     | 200                            | 13                               | 500 KHz                       |
| SDT0804T-681 □ -S | 680                      | 1.15                     | 3               | 0.30                     | 300                            | 13                               | 500 KHz                       |
| SDT0804T-102 □ -S | 1000                     | 1.45                     | 2.5             | 0.25                     | 420                            | 13                               | 500 KHz                       |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1. Operating temperature range -40°C~85°C

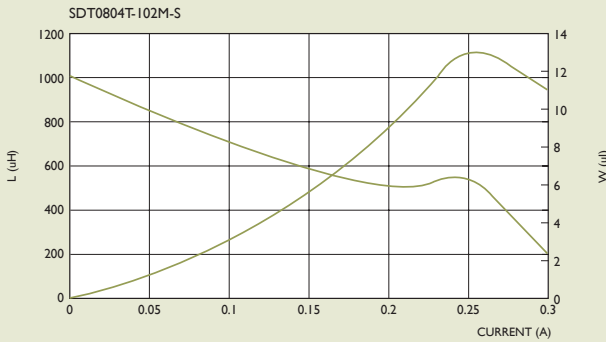
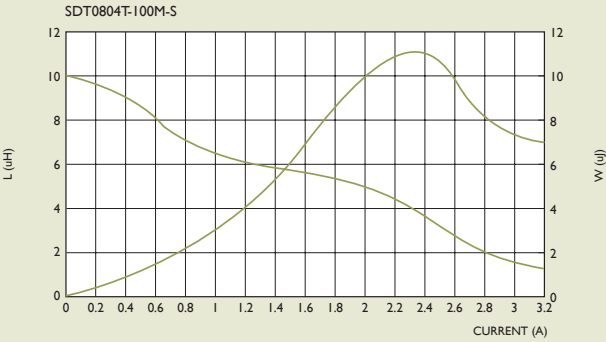
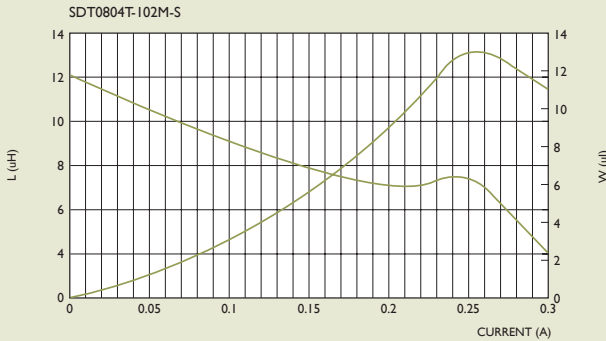
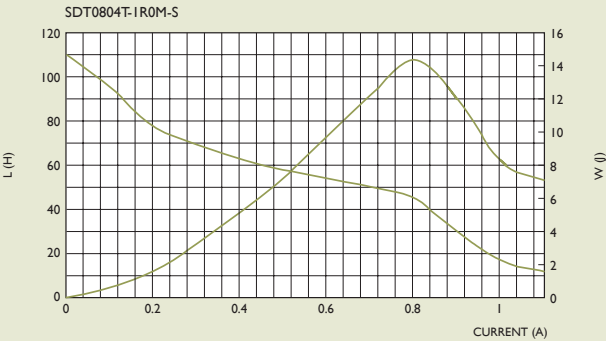
2. Inductance Rating: Measured at the rated current. SDT Series inductors are design for current

3. Current Raging: Average maximum allowable current. SDT Series inductors are design for current spikes as high as 2X the current rating; TEST FREQUENCY : 100 KHz/0.1V

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

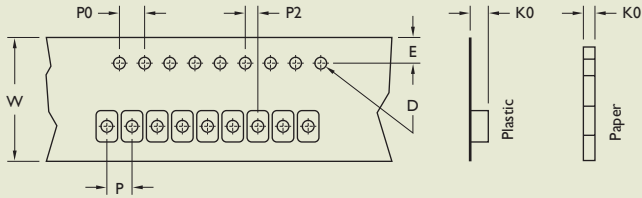


TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT





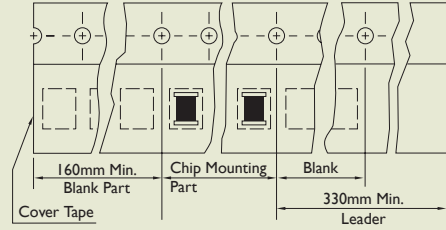
## TAPE DIMENSIONS



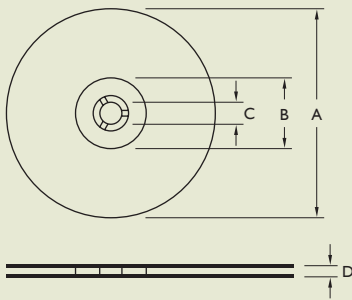
## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

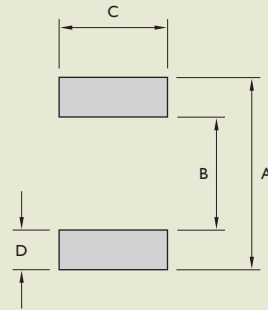


## REEL DIMENSIONS



## RECOMMENDED PATTERN

### Land Pattern



Dimensions : mm

| TYPE    | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |      |      |      | REEL DIMENSIONS |     |    |      | QUANTITY PCS/REEL |      |
|---------|-----------------|------|------|----|----|----|----|---------------------|------|------|------|-----------------|-----|----|------|-------------------|------|
|         | K0              | D    | E    | W  | P  | P0 | P2 | A                   | B    | C    | D    | A               | B   | C  | D    | 178               | 330  |
| SDT0402 | 3.2             | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 6.86                | 4.06 | 3.56 | 1.40 | 330             | 100 | 13 | 13.4 | -                 | 2500 |
|         |                 |      |      |    |    |    |    |                     |      |      |      | 178             | 60  | 13 | 13.2 | 750               | -    |
| SDT0804 | 5.4             | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 13.21               | 7.37 | 2.79 | 2.92 | 330             | 100 | 13 | 24.4 | -                 | 750  |



## SDT SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

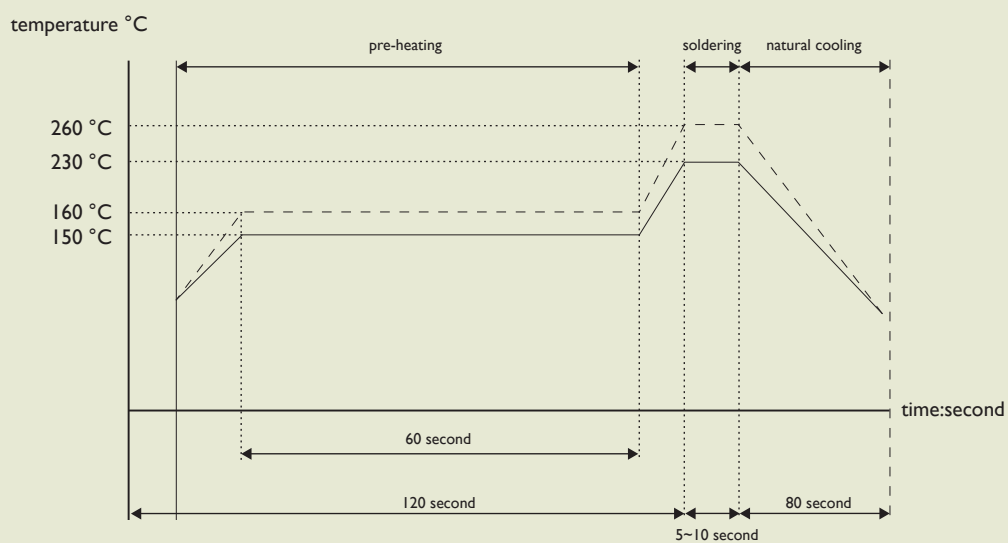
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                        | SPECIFICATION                                                                                            | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
|-------|-----------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-------------|---|---------|----|---|--------|---|---|--------|----|---|--------|---|
| I-2-1 | Temperature Shock           | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to 125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-2 | Temperature Cycle           |                                                                                                          | One Cycle <table><tr><th>Step</th><th>Temperature (°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-25 ± 3</td><td>30</td></tr><tr><td>2</td><td>25 ± 2</td><td>3</td></tr><tr><td>3</td><td>85 ± 3</td><td>30</td></tr><tr><td>4</td><td>25 ± 2</td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature (°C) | Time (Min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 3 | 3 | 85 ± 3 | 30 | 4 | 25 ± 2 | 3 |
| Step  | Temperature (°C)            | Time (Min.)                                                                                              |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 1     | -25 ± 3                     | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 2     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 3     | 85 ± 3                      | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 4     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-3 | Humidity Resistance         |                                                                                                          | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-4 | High Temperature Resistance |                                                                                                          | Temperature : 85 ± 3°C<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                            |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-5 | Low Temperature Resistance  |                                                                                                          | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                               |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |



## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder —————

for: lead-free solder - - - - -

## SMD Power Inductors

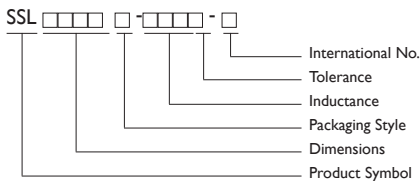
## SSL0618 Series



## DESCRIPTION

- 2mm max height
- Inductance range from 1 $\mu$ H to 1000 $\mu$ H
- Current range from 2.3Amps to 0.08Amps
- Very competitive cost design.

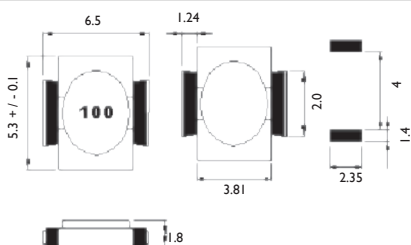
## PRODUCT IDENTIFICATION



## ENVIRONMENTAL DATA

Storage temperature range: -40°C to +125°C  
 Operating ambient temperature range: -40°C to +85°C (range is application specific). Temperature rise is approximately 40°C at rated rms current  
 Infrared reflow temperature : +240°C for 30 seconds.

## SHAPES AND DIMENSIONS



For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

## APPLICATIONS

Digital cameras, CD players, cellular phones, and PDAs  
 PCMCIA cards  
 GPS systems

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu$ H $\pm$ 20%) * | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega^{\circ}$ ) | Isat **<br>(A) | Irms ***<br>(A) |
|-----------------|--------------------------------------|--------------|------------------------------------------|----------------|-----------------|
| SSL0618T-1R0M-S | 1.0                                  | 230          | 0.04                                     | 2.50           | 2.30            |
| SSL0618T-1R5M-S | 1.5                                  | 180          | 0.06                                     | 2.20           | 2.10            |
| SSL0618T-2R2M-S | 2.2                                  | 140          | 0.07                                     | 1.80           | 1.70            |
| SSL0618T-3R3M-S | 3.3                                  | 110          | 0.12                                     | 1.40           | 1.30            |
| SSL0618T-4R7M-S | 4.7                                  | 100          | 0.15                                     | 1.20           | 1.10            |
| SSL0618T-6R8M-S | 6.8                                  | 80           | 0.20                                     | 1.10           | 1.00            |
| SSL0618T-100M-S | 10                                   | 60           | 0.26                                     | 1.00           | 0.90            |
| SSL0618T-150M-S | 15                                   | 45           | 0.40                                     | 0.80           | 0.70            |
| SSL0618T-220M-S | 22                                   | 35           | 0.54                                     | 0.60           | 0.50            |
| SSL0618T-330M-S | 33                                   | 30           | 0.74                                     | 0.50           | 0.45            |
| SSL0618T-470M-S | 47                                   | 22           | 1.10                                     | 0.45           | 0.40            |
| SSL0618T-680M-S | 68                                   | 20           | 1.60                                     | 0.35           | 0.35            |
| SSL0618T-101M-S | 100                                  | 15           | 2.30                                     | 0.30           | 0.30            |
| SSL0618T-151M-S | 150                                  | 10           | 3.50                                     | 0.25           | 0.25            |
| SSL0618T-221M-S | 220                                  | 9            | 5.70                                     | 0.20           | 0.18            |
| SSL0618T-331M-S | 330                                  | 8            | 8.20                                     | 0.16           | 0.16            |
| SSL0618T-471M-S | 470                                  | 7            | 10.8                                     | 0.14           | 0.12            |
| SSL0618T-681M-S | 680                                  | 5            | 17.2                                     | 0.12           | 0.10            |
| SSL0618T-102M-S | 1000                                 | 4            | 22.6                                     | 0.08           | 0.08            |

\* Inductance Tested at 100 KHz , 0.1 Vrms

\*\* DC current at which the inductance drops 10% (typ) from its value without current.

\*\*\* Average current for a 40°C rise above 25°C ambient.

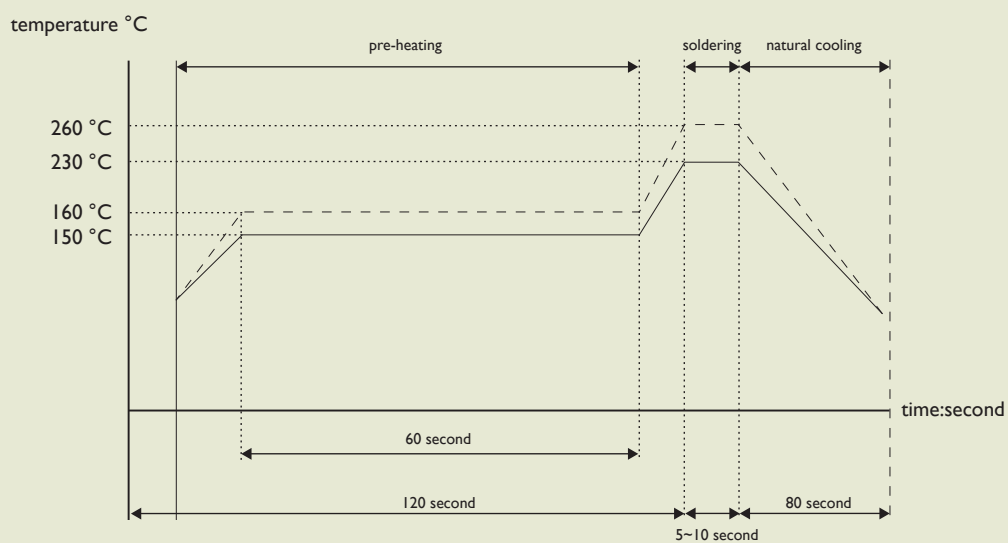
\*\*\*\* Operating Temperature Range -40°C to +85°C

\*\*\*\*\* Electroical specifications at 25°C



## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder —————  
 for: lead-free solder .....  
 time:second

## SMD Power Inductors

## SSL0400 Series

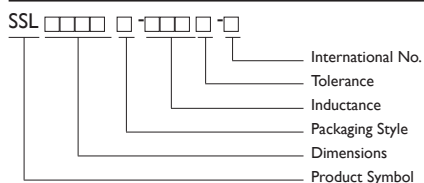


## FEATURES

High energy storage and very low resistance.

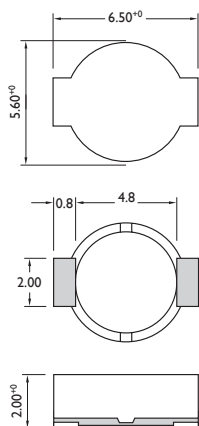
Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

This Series is designed for applications requiring high inductance, high current and an ultra-low profile.

The SSL0400T measures only 2 mm high and has a footprint of just 5.3 x 6.5mm. But despite this small size, it is available in versions that will handle up to 2.5 Amps. The series covers a wide range of inductance values from 1  $\mu$ H to 1 mH.

The core is completely enclosed in a rugged ceramic case giving it a flat top that provides the optimum surface for reliable pick and place operations.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE *<br>( $\mu$ H) | TOLERANCE<br>( $\pm\%$ ) | DC RESISTANCE<br>( $\Omega$ ) Max. | I <sub>sat</sub> **<br>(A) | I <sub>rms</sub> ***<br>(A) |
|-----------------|----------------------------|--------------------------|------------------------------------|----------------------------|-----------------------------|
| SSL0400T-1R0M-S | 1.0                        | 20                       | 0.05                               | 2.5                        | 2.3                         |
| SSL0400T-1R5M-S | 1.5                        | 20                       | 0.06                               | 2.2                        | 2.1                         |
| SSL0400T-2R2M-S | 2.2                        | 20                       | 0.07                               | 1.8                        | 1.7                         |
| SSL0400T-3R3M-S | 3.3                        | 20                       | 0.12                               | 1.4                        | 1.3                         |
| SSL0400T-4R7M-S | 4.7                        | 20                       | 0.15                               | 1.2                        | 1.1                         |
| SSL0400T-6R8M-S | 6.8                        | 20                       | 0.20                               | 1.1                        | 1.0                         |
| SSL0400T-100M-S | 10                         | 20                       | 0.30                               | 1.0                        | 0.90                        |
| SSL0400T-150M-S | 15                         | 20                       | 0.40                               | 0.8                        | 0.70                        |
| SSL0400T-220M-S | 22                         | 20                       | 0.54                               | 0.6                        | 0.50                        |
| SSL0400T-330M-S | 33                         | 20                       | 0.74                               | 0.5                        | 0.45                        |
| SSL0400T-470M-S | 47                         | 20                       | 1.1                                | 0.45                       | 0.40                        |
| SSL0400T-680M-S | 68                         | 20                       | 1.6                                | 0.35                       | 0.35                        |
| SSL0400T-101M-S | 100                        | 20                       | 2.3                                | 0.30                       | 0.30                        |
| SSL0400T-151M-S | 150                        | 20                       | 3.5                                | 0.25                       | 0.25                        |
| SSL0400T-221M-S | 220                        | 20                       | 5.7                                | 0.2                        | 0.18                        |
| SSL0400T-331M-S | 330                        | 20                       | 8.2                                | 0.16                       | 0.16                        |
| SSL0400T-471M-S | 470                        | 20                       | 10.8                               | 0.14                       | 0.12                        |
| SSL0400T-681M-S | 680                        | 20                       | 17.2                               | 0.12                       | 0.10                        |
| SSL0400T-102M-S | 1000                       | 20                       | 22.6                               | 0.08                       | 0.08                        |

\* Inductance Tested at 100 KHz, 0.1 Vrms.

\*\* Inductance Drop = 10% Typ. at I<sub>sat</sub>

\*\*\*  $\Delta T = 30^\circ\text{C}$  Rise Typ at I<sub>rms</sub>

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE                                     | Inductance( $\mu$ H) | Test Freq(KHz) | RDC( $\Omega$ )Max | Isat(A)Max | Irms(A) |
|------------------------------------------|----------------------|----------------|--------------------|------------|---------|
| SSL0400T-1R0 <input type="checkbox"/> -N | 1                    | 0.1V 100KHz    | 0.05               | 2.5        | 2.3     |
| SSL0400T-1R5 <input type="checkbox"/> -N | 1.5                  | 0.1V 100KHz    | 0.06               | 2.2        | 2.1     |
| SSL0400T-2R2 <input type="checkbox"/> -N | 2.2                  | 0.1V 100KHz    | 0.07               | 1.8        | 1.7     |
| SSL0400T-3R3 <input type="checkbox"/> -N | 3.3                  | 0.1V 100KHz    | 0.12               | 1.4        | 1.3     |
| SSL0400T-4R7 <input type="checkbox"/> -N | 4.7                  | 0.1V 100KHz    | 0.15               | 1.2        | 1.1     |
| SSL0400T-6R8 <input type="checkbox"/> -N | 6.8                  | 0.1V 100KHz    | 0.2                | 1.1        | 1       |
| SSL0400T-100 <input type="checkbox"/> -N | 10                   | 0.1V 100KHz    | 0.3                | 1          | 0.9     |
| SSL0400T-150 <input type="checkbox"/> -N | 15                   | 0.1V 100KHz    | 0.4                | 0.8        | 0.7     |
| SSL0400T-220 <input type="checkbox"/> -N | 22                   | 0.1V 100KHz    | 0.54               | 0.6        | 0.5     |
| SSL0400T-330 <input type="checkbox"/> -N | 33                   | 0.1V 100KHz    | 0.74               | 0.5        | 0.45    |
| SSL0400T-470 <input type="checkbox"/> -N | 47                   | 0.1V 100KHz    | 1.1                | 0.45       | 0.4     |
| SSL0400T-680 <input type="checkbox"/> -N | 68                   | 0.1V 100KHz    | 1.6                | 0.35       | 0.35    |
| SSL0400T-101 <input type="checkbox"/> -N | 100                  | 0.1V 100KHz    | 2.3                | 0.3        | 0.3     |
| SSL0400T-151 <input type="checkbox"/> -N | 150                  | 0.1V 100KHz    | 3.5                | 0.25       | 0.25    |
| SSL0400T-221 <input type="checkbox"/> -N | 220                  | 0.1V 100KHz    | 5.7                | 0.2        | 0.18    |
| SSL0400T-331 <input type="checkbox"/> -N | 330                  | 0.1V 100KHz    | 8.2                | 0.16       | 0.16    |
| SSL0400T-471 <input type="checkbox"/> -N | 470                  | 0.1V 100KHz    | 10.8               | 0.14       | 0.12    |
| SSL0400T-681 <input type="checkbox"/> -N | 680                  | 0.1V 100KHz    | 17.2               | 0.12       | 0.1     |
| SSL0400T-102 <input type="checkbox"/> -N | 1000                 | 0.1V 100KHz    | 22.6               | 0.08       | 0.08    |

NOTE : ☐ -tolerance K= $\pm 10\%$  /  $\pm 15\%$  / M= $\pm 20\%$  / N= $+40\%$  -20%

1. Operating temperature range -40°C~85°C

2. Inductance drop = 10% typ. at Isat

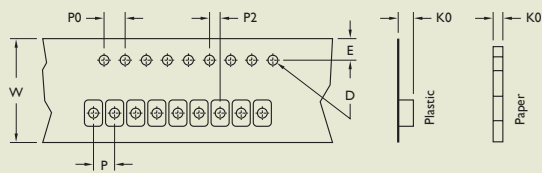
3.  $\Delta T=40^\circ\text{C}$  rise typ at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



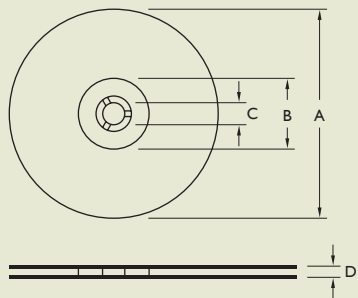
TAPE DIMENSIONS

Dimensions : mm



| TYPE    | TAPE DIMENSIONS |     |      |    |   |    |    |
|---------|-----------------|-----|------|----|---|----|----|
|         | K0              | D   | E    | W  | P | P0 | P2 |
| SSL0400 | 1.85            | 1.5 | 1.75 | 12 | 8 | 4  | 2  |

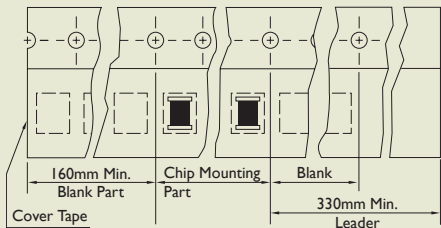
REEL DIMENSIONS



| REEL DIMENSIONS |     |    |      | QUANTITY (PCS/REEL) |       |
|-----------------|-----|----|------|---------------------|-------|
| A               | B   | C  | D    | 178MM               | 330MM |
| 330             | 100 | 13 | 13.4 | -                   | 3500  |
| 178             | 60  | 13 | 13.2 | 1000                | -     |

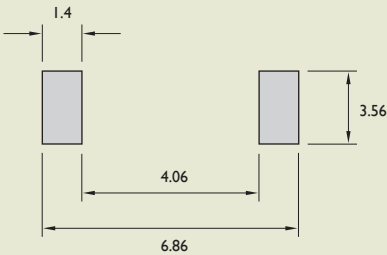
TAPE MATERIAL

Carrier Tape : Polystyrene      Cover Type : Polyethylene



RECOMMENDED PATTERN

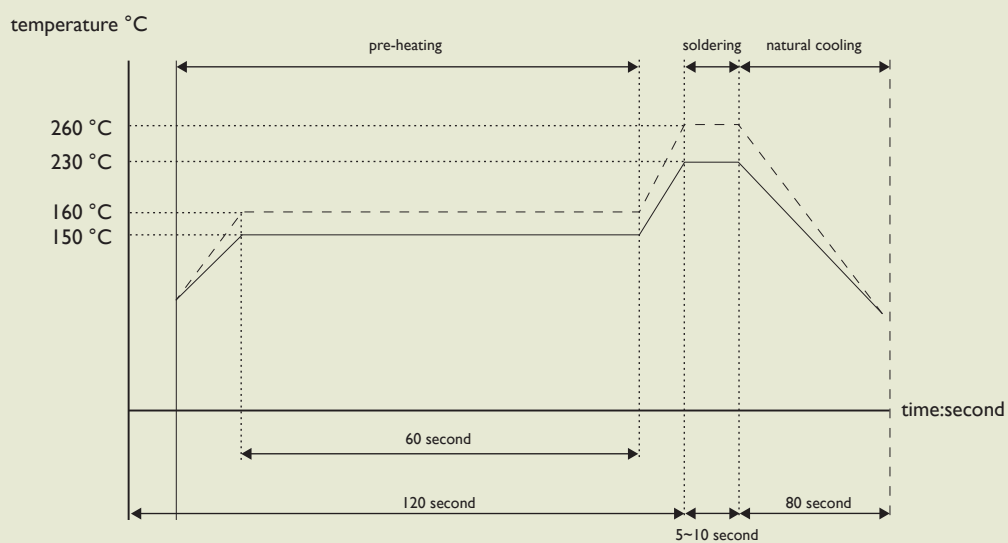
Land Pattern





## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder —————  
for: lead-free solder - - - - -

## SMD Unshielded Power Inductors

# SSL04LP Series

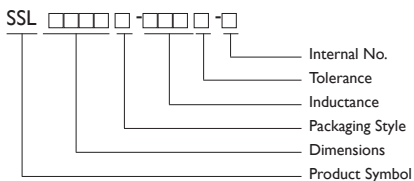
### DC-DC Conversion



### FEATURES

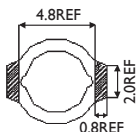
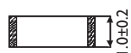
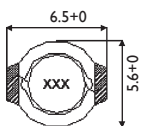
- High energy storage and very low resistance.
- Smallest size and high performance

### PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel, B : Bulk
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

### SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

### APPLICATIONS

Notebook computers, Sep-up and step-down converters  
Flash, memory programmers. etc...

### ELECTRICAL CHARACTERISTICS

| PART NO.       | INDUCTANCE<br>( $\mu\text{H}$ ) * | TOLERANCE<br>( $\pm\%$ ) | DC<br>RESISTANCE<br>( $\Omega^{*6}$ )max | Isat **<br>(A) | Irms ***<br>(A) |
|----------------|-----------------------------------|--------------------------|------------------------------------------|----------------|-----------------|
| SSL04LP-1R2M-S | 1.2                               | 20                       | 0.08                                     | 2.10           | 1.70            |
| SSL04LP-1R5M-S | 1.5                               | 20                       | 0.10                                     | 1.90           | 1.50            |
| SSL04LP-2R2M-S | 2.2                               | 20                       | 0.12                                     | 1.60           | 1.40            |
| SSL04LP-3R3M-S | 3.3                               | 20                       | 0.16                                     | 1.30           | 1.20            |
| SSL04LP-4R7M-S | 4.7                               | 20                       | 0.20                                     | 1.10           | 1.10            |
| SSL04LP-6R8M-S | 6.8                               | 20                       | 0.32                                     | 0.90           | 0.85            |
| SSL04LP-100M-S | 10                                | 20                       | 0.41                                     | 0.80           | 0.75            |
| SSL04LP-150M-S | 15                                | 20                       | 0.55                                     | 0.65           | 0.60            |
| SSL04LP-220M-S | 22                                | 20                       | 0.85                                     | 0.50           | 0.52            |
| SSL04LP-330M-S | 33                                | 20                       | 1.30                                     | 0.40           | 0.42            |
| SSL04LP-470M-S | 47                                | 20                       | 1.80                                     | 0.35           | 0.36            |
| SSL04LP-680M-S | 68                                | 20                       | 2.50                                     | 0.30           | 0.30            |
| SSL04LP-101M-S | 100                               | 20                       | 3.50                                     | 0.25           | 0.26            |
| SSL04LP-151M-S | 150                               | 20                       | 5.00                                     | 0.18           | 0.21            |
| SSL04LP-221M-S | 220                               | 20                       | 7.00                                     | 0.16           | 0.18            |
| SSL04LP-331M-S | 330                               | 20                       | 15.0                                     | 0.13           | 0.13            |

\* Inductance Tested at 100 KHz , 0.1 Vrms

\*\* Inductance drops = 10% typ. at Isat.

\*\*\*  $\Delta T = 30^\circ\text{C}$  rise typ at Irms

\*\*\*\* Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE             | Inductance( $\mu$ H) | Test Freq(KHz) | RDC( $\Omega$ )Max | Isat(A)Max | Irms(A) |
|------------------|----------------------|----------------|--------------------|------------|---------|
| SSL04LP-1R2 □ -N | 1.2                  | 0.1V 100KHz    | 0.08               | 2.1        | 3.6     |
| SSL04LP-1R5 □ -N | 1.5                  | 0.1V 100KHz    | 0.1                | 1.9        | 2.8     |
| SSL04LP-2R2 □ -N | 2.2                  | 0.1V 100KHz    | 0.12               | 1.6        | 2.4     |
| SSL04LP-3R3 □ -N | 3.3                  | 0.1V 100KHz    | 0.16               | 1.3        | 2       |
| SSL04LP-4R7 □ -N | 4.7                  | 0.1V 100KHz    | 0.2                | 1.1        | 1.7     |
| SSL04LP-6R8 □ -N | 6.8                  | 0.1V 100KHz    | 0.32               | 0.9        | 1.2     |
| SSL04LP-100 □ -N | 10                   | 0.1V 100KHz    | 0.41               | 0.8        | 1.1     |
| SSL04LP-150 □ -N | 15                   | 0.1V 100KHz    | 0.55               | 0.65       | 0.9     |
| SSL04LP-220 □ -N | 22                   | 0.1V 100KHz    | 0.85               | 0.5        | 0.83    |
| SSL04LP-330 □ -N | 33                   | 0.1V 100KHz    | 1.3                | 0.4        | 0.62    |
| SSL04LP-470 □ -N | 47                   | 0.1V 100KHz    | 1.8                | 0.35       | 0.52    |
| SSL04LP-680 □ -N | 68                   | 0.1V 100KHz    | 2.5                | 0.3        | 0.35    |
| SSL04LP-101 □ -N | 100                  | 0.1V 100KHz    | 3.5                | 0.25       | 0.27    |
| SSL04LP-151 □ -N | 150                  | 0.1V 100KHz    | 5                  | 0.18       | 0.24    |
| SSL04LP-221 □ -N | 220                  | 0.1V 100KHz    | 7                  | 0.16       | 0.23    |
| SSL04LP-331 □ -N | 330                  | 0.1V 100KHz    | 15                 | 0.13       | 0.13    |

NOTE : □ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

1.Operating temperature range -40°C~85°C

2.Inductance drop = 10% typ. at Isat

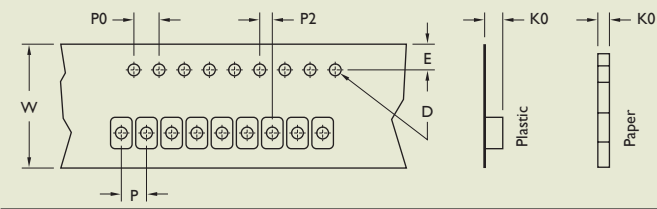
3.ΔT=40°C rise typ at Irms.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



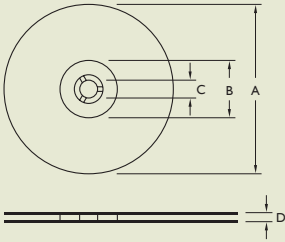
TAPE DIMENSIONS

Dimensions : mm



| TYPE    | TAPE DIMENSIONS |     |      |    |   |    |    |
|---------|-----------------|-----|------|----|---|----|----|
|         | K0              | D   | E    | W  | P | P0 | P2 |
| SSL04LP | 1.30            | 1.5 | 1.75 | 12 | 8 | 4  | 2  |

REEL DIMENSIONS



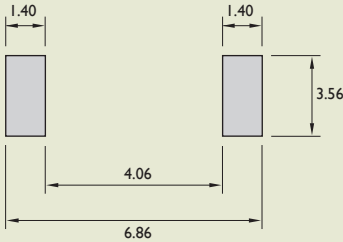
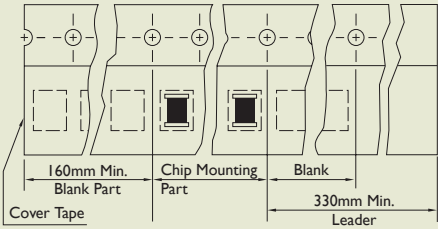
| REEL DIMENSIONS |     |    |      | QUANTITY (PCS/REEL) |       |
|-----------------|-----|----|------|---------------------|-------|
| A               | B   | C  | D    | 178MM               | 330MM |
| 330             | 100 | 13 | 13.4 | -                   | 3500  |
| 178             | 60  | 13 | 13.2 | 1000                | -     |

TAPE MATERIAL

Carrier Tape : Polystyrene      Cover Type : Polyethylene

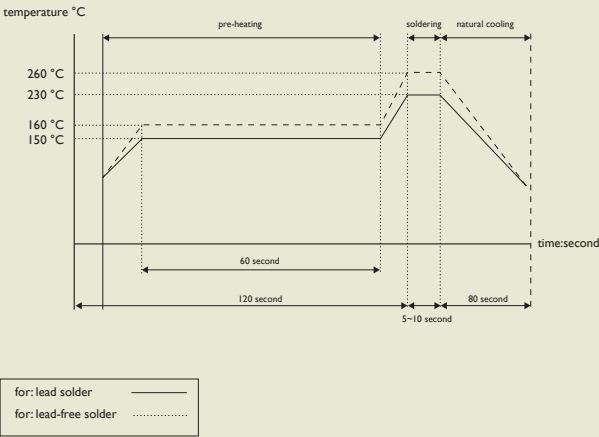
RECOMMENDED PATTERN

Land Pattern



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



# SMD Power Inductors

## APPLICATIONS

Flash, memory programmers. Etc...

## ELECTRICAL CHARACTERISTICS

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*  $\Delta T = 30^{\circ}\text{C}$  Rise Typ at Irms.

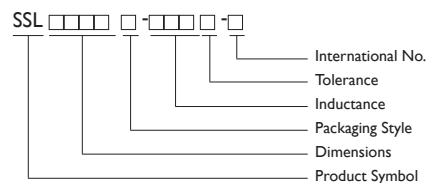
Operating Temperature Range -40°C to +85°C



## FEATURES

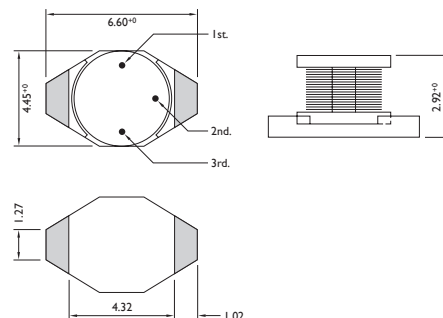
### Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>Max | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|-------------------|--------------------|----------------------------|------------------------|-------------------------|-------------------------|------------------|
| SSL0402T-1R0 □ -N | 1                  | 100KHz,0.1V                | 0.05                   | 2.9                     | 2.9                     | 130              |
| SSL0402T-1R5 □ -N | 1.5                | 100KHz,0.1V                | 0.05                   | 2.6                     | 2.8                     | 115              |
| SSL0402T-2R2 □ -N | 2.2                | 100KHz,0.1V                | 0.07                   | 2.3                     | 2.4                     | 90               |
| SSL0402T-3R3 □ -N | 3.3                | 100KHz,0.1V                | 0.08                   | 2                       | 2                       | 70               |
| SSL0402T-4R7 □ -N | 4.7                | 100KHz,0.1V                | 0.09                   | 1.5                     | 1.5                     | 50               |
| SSL0402T-5R6 □ -N | 5.6                | 100KHz,0.1V                | 0.11                   | 1.3                     | -                       | 47               |
| SSL0402T-6R8 □ -N | 6.8                | 100KHz,0.1V                | 0.13                   | 1.2                     | 1.4                     | 45               |
| SSL0402T-100 □ -N | 10                 | 100KHz,0.1V                | 0.16                   | 1.1                     | 1.1                     | 35               |
| SSL0402T-150 □ -N | 15                 | 100KHz,0.1V                | 0.23                   | 0.9                     | 1.2                     | 30               |
| SSL0402T-220 □ -N | 22                 | 100KHz,0.1V                | 0.37                   | 0.7                     | 0.8                     | 20               |
| SSL0402T-330 □ -N | 33                 | 100KHz,0.1V                | 0.51                   | 0.58                    | 0.6                     | 15               |
| SSL0402T-470 □ -N | 47                 | 100KHz,0.1V                | 0.64                   | 0.5                     | 0.5                     | 14               |
| SSL0402T-680 □ -N | 68                 | 100KHz,0.1V                | 0.86                   | 0.4                     | 0.4                     | 11               |
| SSL0402T-101 □ -N | 100                | 100KHz,0.1V                | 1.27                   | 0.31                    | 0.3                     | 9                |
| SSL0402T-151 □ -N | 150                | 100KHz,0.1V                | 2                      | 0.27                    | 0.25                    | 6                |
| SSL0402T-221 □ -N | 220                | 100KHz,0.1V                | 3.11                   | 0.22                    | 0.2                     | 5.5              |
| SSL0402T-331 □ -N | 330                | 100KHz,0.1V                | 3.8                    | 0.18                    | 0.16                    | 5                |
| SSL0402T-471 □ -N | 470                | 100KHz,0.1V                | 5.66                   | 0.16                    | 0.15                    | 4                |
| SSL0402T-681 □ -N | 680                | 100KHz,0.1V                | 9.2                    | 0.14                    | 0.12                    | 3                |
| SSL0402T-102 □ -N | 1000               | 100KHz,0.1V                | 13.8                   | 0.1                     | 0.07                    | 2                |

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

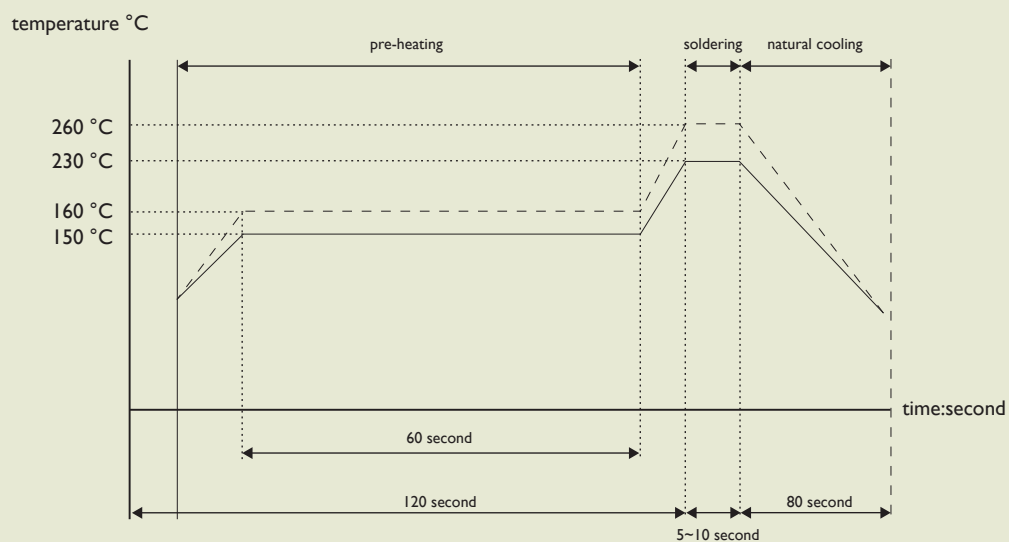
4. ΔT=30°C rise typ.at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)



## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder ————  
for: lead-free solder .....

## SMD Power Inductors

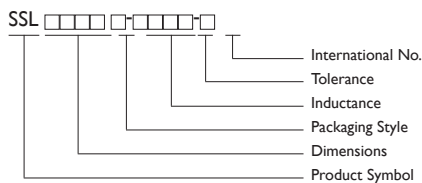
## SSL0802 Series



## FEATURES

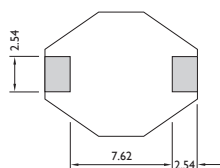
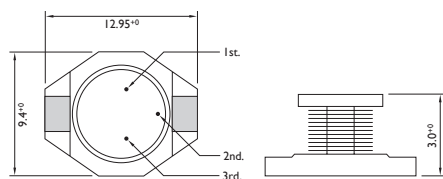
High energy storage and very low resistance.  
Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters  
Flash, memory programmers. Etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ ) * | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega^{\circ}$ ) | Isat **<br>(A) | Irms ***<br>(A) |
|-----------------|--------------------------------------------|--------------|------------------------------------------|----------------|-----------------|
| SSL0802T-100M-S | 10                                         | 35           | 0.09                                     | 2.4            | 2.0             |
| SSL0802T-150M-S | 15                                         | 33           | 0.12                                     | 2.0            | 1.5             |
| SSL0802T-220M-S | 22                                         | 25           | 0.19                                     | 1.6            | 1.3             |
| SSL0802T-330M-S | 33                                         | 19           | 0.25                                     | 1.4            | 1.1             |
| SSL0802T-470M-S | 47                                         | 14           | 0.32                                     | 1.0            | 0.8             |
| SSL0802T-680M-S | 68                                         | 12           | 0.55                                     | 0.9            | 0.7             |
| SSL0802T-101M-S | 100                                        | 10           | 0.7                                      | 0.7            | 0.6             |
| SSL0802T-151M-S | 150                                        | 8            | 1.0                                      | 0.6            | 0.5             |
| SSL0802T-221M-S | 220                                        | 6            | 1.6                                      | 0.5            | 0.4             |
| SSL0802T-331M-S | 330                                        | 5            | 2.2                                      | 0.4            | 0.3             |
| SSL0802T-471M-S | 470                                        | 4            | 3.3                                      | 0.3            | 0.2             |
| SSL0802T-681M-S | 680                                        | 3            | 4.4                                      | 0.2            | 0.1             |
| SSL0802T-102M-S | 1000                                       | 2.5          | 7.0                                      | 0.1            | 0.05            |

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*  $\Delta T = 30^{\circ}\text{C}$  Rise Typ at Irms.Operating Temperature Range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>Max | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|-------------------|--------------------|----------------------------|------------------------|-------------------------|-------------------------|------------------|
| SSL0802T-100 □ -N | 10                 | 100KHz,0.1V                | 0.09                   | 2.4                     | 2                       | 35               |
| SSL0802T-150 □ -N | 15                 | 100KHz,0.1V                | 0.12                   | 2                       | 1.5                     | 33               |
| SSL0802T-220 □ -N | 22                 | 100KHz,0.1V                | 0.19                   | 1.6                     | 1.3                     | 25               |
| SSL0802T-330 □ -N | 33                 | 100KHz,0.1V                | 0.25                   | 1.4                     | 1.1                     | 19               |
| SSL0802T-470 □ -N | 47                 | 100KHz,0.1V                | 0.32                   | 1                       | 0.8                     | 14               |
| SSL0802T-680 □ -N | 68                 | 100KHz,0.1V                | 0.55                   | 0.9                     | 0.7                     | 12               |
| SSL0802T-101 □ -N | 100                | 100KHz,0.1V                | 0.7                    | 0.7                     | 0.6                     | 10               |
| SSL0802T-151 □ -N | 150                | 100KHz,0.1V                | 1                      | 0.6                     | 0.5                     | 8                |
| SSL0802T-221 □ -N | 220                | 100KHz,0.1V                | 1.6                    | 0.5                     | 0.4                     | 6                |
| SSL0802T-331 □ -N | 330                | 100KHz,0.1V                | 2.2                    | 0.4                     | 0.3                     | 5                |
| SSL0802T-471 □ -N | 470                | 100KHz,0.1V                | 3.3                    | 0.3                     | 0.2                     | 4                |
| SSL0802T-681 □ -N | 680                | 100KHz,0.1V                | 4.4                    | 0.2                     | 0.1                     | 3                |
| SSL0802T-102 □ -N | 1000               | 100KHz,0.1V                | 7                      | 0.1                     | 0.05                    | 2.5              |

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

4. ΔT=30°C rise typ.at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## SMD Power Inductors

## SSL0804 Series

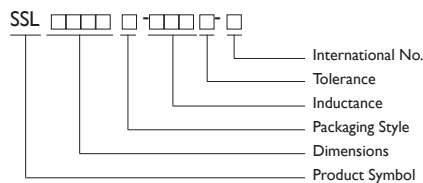


## FEATURES

High energy storage and very low resistance.

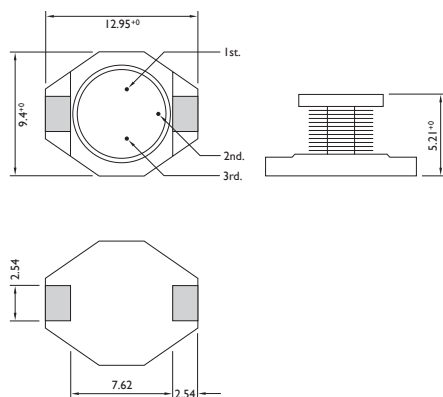
Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ ) * | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega \pm 0$ ) $\pm 15\%$ | Isat **<br>(A) | Irms ***<br>(A) |
|-----------------|--------------------------------------------|--------------|---------------------------------------------------|----------------|-----------------|
| SSL0804T-1R0M-S | 1.0                                        | 100          | 0.009                                             | 9.0            | 6.8             |
| SSL0804T-1R5M-S | 1.5                                        | 90           | 0.010                                             | 8.0            | 6.4             |
| SSL0804T-2R2M-S | 2.2                                        | 80           | 0.012                                             | 7.0            | 6.1             |
| SSL0804T-3R3M-S | 3.3                                        | 65           | 0.015                                             | 6.4            | 5.4             |
| SSL0804T-4R7M-S | 4.7                                        | 45           | 0.018                                             | 5.4            | 4.8             |
| SSL0804T-6R8M-S | 6.8                                        | 38           | 0.027                                             | 4.6            | 4.4             |
| SSL0804T-100M-S | 10                                         | 30           | 0.038                                             | 3.8            | 3.9             |
| SSL0804T-150M-S | 15                                         | 27           | 0.046                                             | 3.0            | 3.1             |
| SSL0804T-220M-S | 22                                         | 19           | 0.085                                             | 2.6            | 2.7             |
| SSL0804T-330M-S | 33                                         | 15           | 0.10                                              | 2.0            | 2.1             |
| SSL0804T-470M-S | 47                                         | 12           | 0.14                                              | 1.6            | 1.8             |
| SSL0804T-680M-S | 68                                         | 10           | 0.20                                              | 1.4            | 1.5             |
| SSL0804T-101M-S | 100                                        | 9            | 0.28                                              | 1.2            | 1.3             |
| SSL0804T-151M-S | 150                                        | 6            | 0.40                                              | 1.0            | 1.0             |
| SSL0804T-221M-S | 220                                        | 5            | 0.61                                              | 0.8            | 0.8             |
| SSL0804T-331M-S | 330                                        | 4.5          | 1.02                                              | 0.6            | 0.6             |
| SSL0804T-471M-S | 470                                        | 3.5          | 1.27                                              | 0.5            | 0.5             |
| SSL0804T-681M-S | 680                                        | 2.5          | 2.02                                              | 0.4            | 0.4             |
| SSL0804T-102M-S | 1000                                       | 2.0          | 3.0                                               | 0.3            | 0.3             |

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*  $\Delta T = 15^\circ\text{C}$  Rise Typ at I rms.

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE | TEST FREQUENCY | Rdc<br>Max | Isat<br>(A) | Irms<br>(A) | SRF<br>(KHz)Typ. | COLOR CODE |     |     |
|-------------------|------------|----------------|------------|-------------|-------------|------------------|------------|-----|-----|
|                   | (nH)       | (MHZ)          |            |             |             |                  | 1st        | 2nd | 3rd |
| SSL0804T-1R0 □ -N | 1          | 100KHz,0.1V    | 0.009+0    | 9           | 6.8         | 100              | BRN        | BLK | RED |
| SSL0804T-1R5 □ -N | 1.5        | 100KHz,0.1V    | 0.010+0    | 8           | 6.4         | 90               | BRN        | GRN | RED |
| SSL0804T-2R2 □ -N | 2.2        | 100KHz,0.1V    | 0.012+0    | 7           | 6.1         | 80               | RED        | RED | RED |
| SSL0804T-3R3 □ -N | 3.3        | 100KHz,0.1V    | 0.015+0    | 6.4         | 5.4         | 65               | ORN        | ORN | RED |
| SSL0804T-4R7 □ -N | 4.7        | 100KHz,0.1V    | 0.018+0    | 5.4         | 4.8         | 45               | YEL        | VIO | RED |
| SSL0804T-6R8 □ -N | 6.8        | 100KHz,0.1V    | 0.027+0    | 4.6         | 4.4         | 38               | BLU        | GRY | RED |
| SSL0804T-100 □ -N | 10         | 100KHz,0.1V    | 0.038+0    | 3.8         | 3.9         | 30               | BRN        | BLK | ORN |
| SSL0804T-120 □ -N | 12         | 100KHz,0.1V    | 0.0432+0   | 3.6         | 3.5         | 27               | BRN        | RED | ORN |
| SSL0804T-150 □ -N | 15         | 100KHz,0.1V    | 0.046+0    | 3           | 3.1         | 27               | BRN        | GRN | ORN |
| SSL0804T-220 □ -N | 22         | 100KHz,0.1V    | 0.085+0    | 2.6         | 2.7         | 19               | RED        | RED | ORN |
| SSL0804T-330 □ -N | 33         | 100KHz,0.1V    | 0.100+0    | 2           | 2.1         | 15               | ORN        | ORN | ORN |
| SSL0804T-470 □ -N | 47         | 100KHz,0.1V    | 0.140+0    | 1.6         | 1.8         | 12               | YEL        | VIO | ORN |
| SSL0804T-680 □ -N | 68         | 100KHz,0.1V    | 0.200+0    | 1.4         | 1.5         | 10               | BLU        | GRY | ORN |
| SSL0804T-101 □ -N | 100        | 100KHz,0.1V    | 0.280+0    | 1.2         | 1.3         | 9                | BRN        | BLK | YEL |
| SSL0804T-151 □ -N | 150        | 100KHz,0.1V    | 0.400+0    | 1           | 1           | 6                | BRN        | GRN | YEL |
| SSL0804T-221 □ -N | 220        | 100KHz,0.1V    | 0.610+0    | 0.8         | 0.8         | 5                | RED        | RED | YEL |
| SSL0804T-331 □ -N | 330        | 100KHz,0.1V    | 1.020+0    | 0.6         | 0.6         | 4.5              | ORN        | ORN | YEL |
| SSL0804T-471 □ -N | 470        | 100KHz,0.1V    | 1.270+0    | 0.5         | 0.5         | 3.5              | YEL        | VIO | YEL |
| SSL0804T-681 □ -N | 680        | 100KHz,0.1V    | 2.020+0    | 0.4         | 0.4         | 2.5              | BLU        | GRY | YEL |
| SSL0804T-102 □ -N | 1000       | 100KHz,0.1V    | 3.000+0    | 0.3         | 0.3         | 2                | BRN        | BLK | GRN |

NOTE : □ -tolerance M=±20%

1. Operating temperature range -40°C~85°C

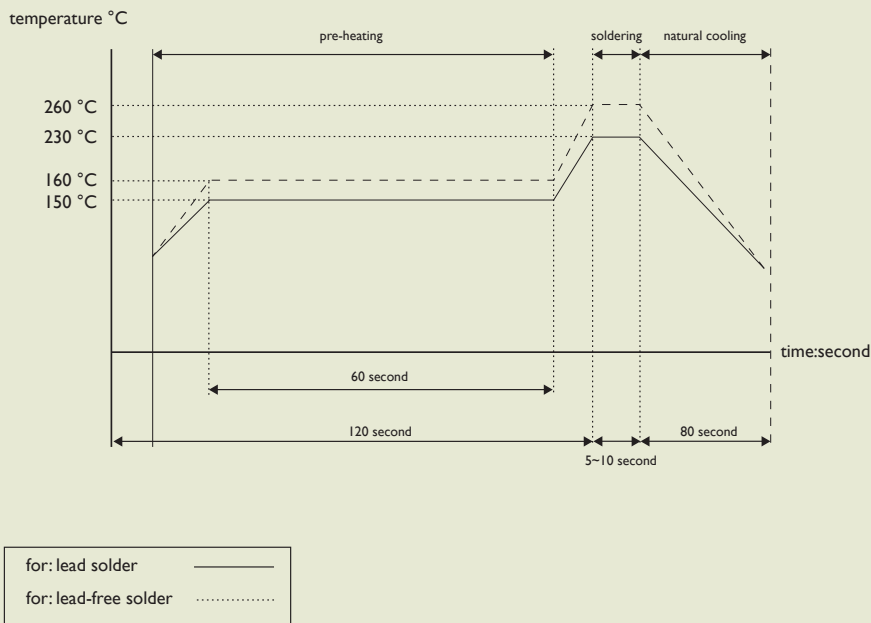
2. Inductance drop 20% typ. at last

4. ΔT=15°C rise typ. at Irms.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



## SMD Power Inductors

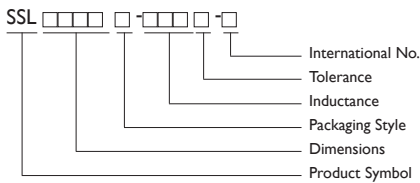
## SSL0810 Series



## FEATURES

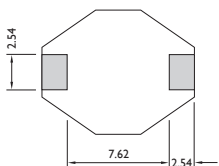
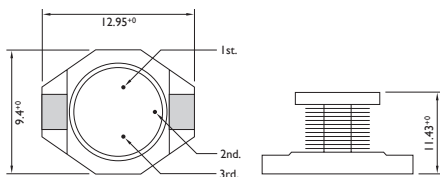
- High energy storage and very low resistance.
- Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

## APPLICATIONS

- Notebook computers, Sep-up and step-down converters
- Flash, memory programmers. Etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ ) * | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega^{\circ}$ ) | Isat **<br>(A) | Irms ***<br>(A) |
|-----------------|--------------------------------------------|--------------|------------------------------------------|----------------|-----------------|
| SSL0810T-100M-S | 10                                         | 22           | 0.033                                    | 8.0            | 3.5             |
| SSL0810T-150M-S | 15                                         | 18           | 0.042                                    | 7.0            | 3.0             |
| SSL0810T-220M-S | 22                                         | 11           | 0.054                                    | 5.5            | 2.5             |
| SSL0810T-330M-S | 33                                         | 9            | 0.08                                     | 4.0            | 2.0             |
| SSL0810T-470M-S | 47                                         | 8            | 0.10                                     | 3.8            | 1.6             |
| SSL0810T-680M-S | 68                                         | 7            | 0.17                                     | 3.0            | 1.2             |
| SSL0810T-101M-S | 100                                        | 5            | 0.22                                     | 2.5            | 1.2             |
| SSL0810T-151M-S | 150                                        | 4            | 0.34                                     | 2.0            | 0.9             |
| SSL0810T-221M-S | 220                                        | 3.5          | 0.44                                     | 1.6            | 0.7             |
| SSL0810T-331M-S | 330                                        | 2.5          | 0.70                                     | 1.2            | 0.6             |
| SSL0810T-471M-S | 470                                        | 2            | 0.95                                     | 1.0            | 0.3             |
| SSL0810T-681M-S | 680                                        | 2            | 1.2                                      | 1.0            | 0.2             |
| SSL0810T-102M-S | 1000                                       | 1.5          | 2.0                                      | 0.8            | 0.1             |

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*  $\Delta T = 40^{\circ}\text{C}$  Rise Typ at Irms.Operating Temperature Range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>Max | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|-------------------|--------------------|----------------------------|------------------------|-------------------------|-------------------------|------------------|
| SSL0810T-4R7 □ -N | 4.7                | 100KHz,0.1V                | 0.033                  | 8                       | 3.5                     | 25               |
| SSL0810T-100 □ -N | 10                 | 100KHz,0.1V                | 0.033                  | 8                       | 3.5                     | 22               |
| SSL0810T-150 □ -N | 15                 | 100KHz,0.1V                | 0.042                  | 7                       | 3                       | 18               |
| SSL0810T-220 □ -N | 22                 | 100KHz,0.1V                | 0.054                  | 5.5                     | 2.5                     | 11               |
| SSL0810T-330 □ -N | 33                 | 100KHz,0.1V                | 0.08                   | 4                       | 2                       | 9                |
| SSL0810T-470 □ -N | 47                 | 100KHz,0.1V                | 0.1                    | 3.8                     | 1.6                     | 8                |
| SSL0810T-680 □ -N | 68                 | 100KHz,0.1V                | 0.17                   | 3                       | 1.2                     | 7                |
| SSL0810T-101 □ -N | 100                | 100KHz,0.1V                | 0.22                   | 2.5                     | 1.2                     | 5                |
| SSL0810T-151 □ -N | 150                | 100KHz,0.1V                | 0.34                   | 2                       | 0.9                     | 4                |
| SSL0810T-221 □ -N | 220                | 100KHz,0.1V                | 0.44                   | 1.6                     | 0.7                     | 3.5              |
| SSL0810T-331 □ -N | 330                | 100KHz,0.1V                | 0.7                    | 1.2                     | 0.6                     | 2.5              |
| SSL0810T-471 □ -N | 470                | 100KHz,0.1V                | 0.95                   | 1                       | 0.3                     | 2                |
| SSL0810T-681 □ -N | 680                | 100KHz,0.1V                | 1.2                    | 1                       | 0.2                     | 2                |
| SSL0810T-102 □ -N | 1000               | 100KHz,0.1V                | 2                      | 0.8                     | 0.1                     | 1.5              |

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

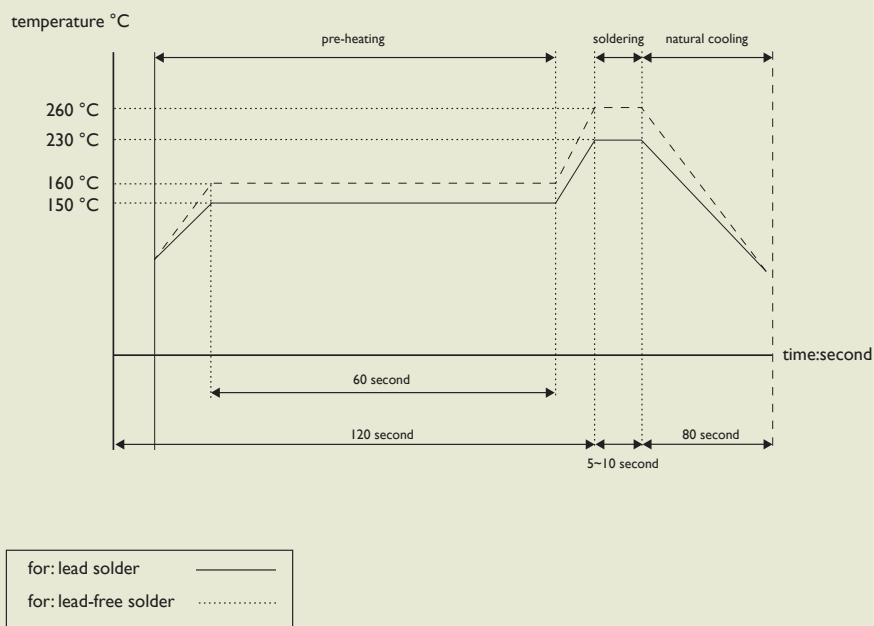
2.Inductance drop 20% typ. at last

4. ΔT=40°C rise typ.at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



## SMD Power Inductors

## SSL I 306 Series

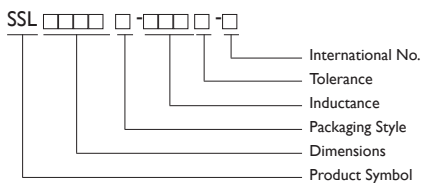


## FEATURES

High energy storage and very low resistance.

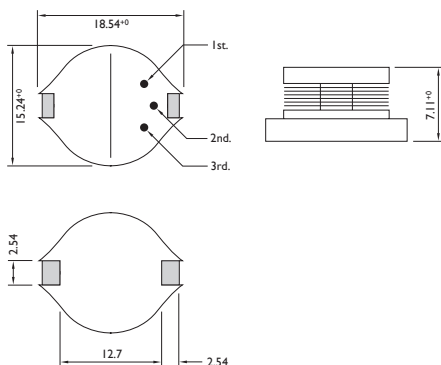
Smallest size and high performance

## PRODUCT IDENTIFICATION



- Packaging: T : Tape and Reel
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL04LP-1R2M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

For SSL series provide excellent current carrying capabilities in a small footprint. They have a flat top for reliable pick and place operations and features robust temperature deflection. In addition to the standard versions shown here, custom inductors are available to meet your exact requirement.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ )* | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega^0$ ) | Isat**<br>(A) | Irms***<br>(A) |
|-----------------|-------------------------------------------|--------------|------------------------------------|---------------|----------------|
| SSLI306T-1R0M-S | 1.0                                       | 80           | 0.011                              | 20            | 8.6            |
| SSLI306T-2R2M-S | 2.2                                       | 80           | 0.014                              | 16            | 7.1            |
| SSLI306T-3R3M-S | 3.3                                       | 60           | 0.016                              | 14            | 6.2            |
| SSLI306T-5R6M-S | 5.6                                       | 40           | 0.022                              | 12            | 5.3            |
| SSLI306T-100M-S | 10                                        | 30           | 0.032                              | 10            | 4.3            |
| SSLI306T-150M-S | 15                                        | 22           | 0.036                              | 8.0           | 4.0            |
| SSLI306T-220M-S | 22                                        | 20           | 0.047                              | 7.0           | 3.5            |
| SSLI306T-330M-S | 33                                        | 15           | 0.066                              | 5.5           | 3.0            |
| SSLI306T-470M-S | 47                                        | 9            | 0.087                              | 4.5           | 2.6            |
| SSLI306T-680M-S | 68                                        | 8            | 0.13                               | 3.5           | 2.3            |
| SSLI306T-101M-S | 100                                       | 7            | 0.19                               | 3.0           | 1.8            |
| SSLI306T-151M-S | 150                                       | 6            | 0.25                               | 2.6           | 1.5            |
| SSLI306T-221M-S | 220                                       | 5            | 0.38                               | 2.4           | 1.2            |
| SSLI306T-331M-S | 330                                       | 4            | 0.56                               | 1.9           | 1.0            |
| SSLI306T-471M-S | 470                                       | 3            | 0.85                               | 1.4           | 0.82           |
| SSLI306T-681M-S | 680                                       | 2.5          | 1.2                                | 1.2           | 0.72           |
| SSLI306T-102M-S | 1000                                      | 2            | 1.8                                | 1.0           | 0.56           |

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*  $\Delta T = 40^\circ\text{C}$  Rise Typ at Irms.

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.          | INDUCTANCE<br>(nH) | TEST<br>FREQUENCY<br>(MHZ) | R <sub>dc</sub><br>(Ω) | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|-------------------|--------------------|----------------------------|------------------------|-------------------------|-------------------------|------------------|
| SSLI306T-1R0 □ -N | 1                  | 100KHz,0.1V                | 0.011±15%              | 20                      | 8.6                     | 80               |
| SSLI306T-2R2 □ -N | 2.2                | 100KHz,0.1V                | 0.014±15%              | 16                      | 7.1                     | 80               |
| SSLI306T-3R3 □ -N | 3.3                | 100KHz,0.1V                | 0.016±15%              | 14                      | 6.2                     | 60               |
| SSLI306T-5R6 □ -N | 5.6                | 100KHz,0.1V                | 0.022±15%              | 12                      | 5.3                     | 40               |
| SSLI306T-100 □ -N | 10                 | 100KHz,0.1V                | 0.032±15%              | 10                      | 4.3                     | 30               |
| SSLI306T-150 □ -N | 15                 | 100KHz,0.1V                | 0.036±15%              | 8                       | 4                       | 22               |
| SSLI306T-220 □ -N | 22                 | 100KHz,0.1V                | 0.047±15%              | 7                       | 3.5                     | 20               |
| SSLI306T-330 □ -N | 33                 | 100KHz,0.1V                | 0.066±15%              | 5.5                     | 3                       | 15               |
| SSLI306T-470 □ -N | 47                 | 100KHz,0.1V                | 0.087±15%              | 4.5                     | 2.6                     | 9                |
| SSLI306T-680 □ -N | 68                 | 100KHz,0.1V                | 0.13±15%               | 3.5                     | 2.3                     | 8                |
| SSLI306T-101 □ -N | 100                | 100KHz,0.1V                | 0.19±15%               | 3                       | 1.8                     | 7                |
| SSLI306T-151 □ -N | 150                | 100KHz,0.1V                | 0.25±15%               | 2.6                     | 1.5                     | 6                |
| SSLI306T-221 □ -N | 220                | 100KHz,0.1V                | 0.38±15%               | 2.4                     | 1.2                     | 5                |
| SSLI306T-331 □ -N | 330                | 100KHz,0.1V                | 0.56±15%               | 1.9                     | 1                       | 4                |
| SSLI306T-471 □ -N | 470                | 100KHz,0.1V                | 0.85±15%               | 1.4                     | 0.82                    | 3                |
| SSLI306T-681 □ -N | 680                | 100KHz,0.1V                | 1.2±15%                | 1.2                     | 0.72                    | 2.5              |
| SSLI306T-102 □ -N | 1000               | 100KHz,0.1V                | 1.8±15%                | 1                       | 0.56                    | 2                |

NOTE : □ -tolerance M=±20%

1.Operating temperature range -40°C~85°C

2.Inductance drop 20% typ. at last

4. ΔT=40°C rise typ.at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



TAPE DIMENSIONS

Dimensions : mm

| TYPE    | TAPE DIMENSIONS |      |      |    |    |    |    |
|---------|-----------------|------|------|----|----|----|----|
|         | K0              | D    | E    | W  | P  | P0 | P2 |
| SSL0402 | 3.2             | 1.55 | 1.75 | 12 | 8  | 4  | 2  |
| SSL0802 | 3.75            | 1.55 | 1.75 | 24 | 16 | 4  | 2  |
| SSL0804 | 5.4             | 1.55 | 1.75 | 24 | 16 | 4  | 2  |
| SSL0810 | 11.5            | 1.55 | 1.75 | 24 | 20 | 4  | 2  |
| SSL1306 | 7.5             | 1.55 | 1.75 | 32 | 20 | 4  | 2  |

REEL DIMENSIONS

Dimensions : mm

| TYPE    | REEL DIMENSIONS |     |    |      | QUANTITY /REEL |      |
|---------|-----------------|-----|----|------|----------------|------|
|         | A               | B   | C  | D    | 178            | 330  |
| SSL0402 | 330             | 100 | 13 | 13.4 | -              | 2500 |
|         | 178             | 60  |    | 13.2 | 750            | -    |
| SSL0802 | 330             | 100 | 13 | 24.4 | -              | 1000 |
| SSL0804 | 330             | 100 | 13 | 24.4 | -              | 750  |
| SSL0810 | 330             | 100 | 13 | 24.4 | -              | 225  |
| SSL1306 | 330             | 100 | 13 | 33.4 | -              | 250  |

RECOMMENDED PATTERN

Dimensions : mm

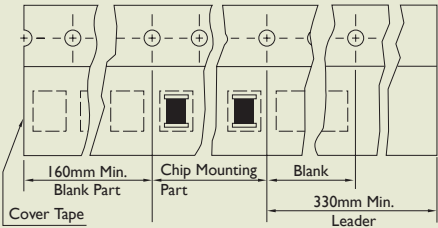
Land Pattern

| RECOMMENDED PATTERN |       |       |      |      |
|---------------------|-------|-------|------|------|
|                     | A     | B     | C    | D    |
| SSL0402             | 6.86  | 4.06  | 3.58 | 1.40 |
| SSL0802             | 13.21 | 7.37  | 2.79 | 2.92 |
| SSL0804             | 13.21 | 7.37  | 2.79 | 2.92 |
| SSL0810             | 13.21 | 7.37  | 2.79 | 2.92 |
| SSL1306             | 18.29 | 12.45 | 2.79 | 2.92 |

TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene





## SSL SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

### I-2 ENVIRONMENTAL PERFORMANCE

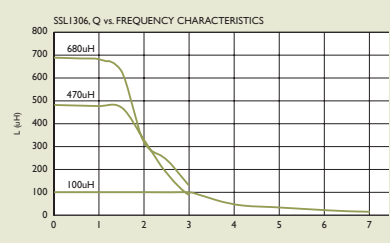
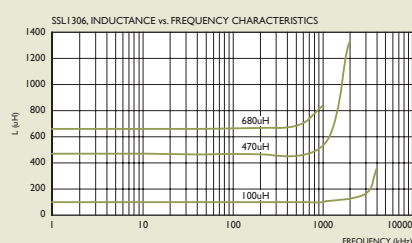
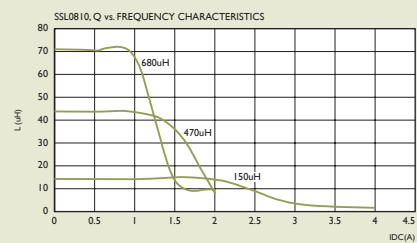
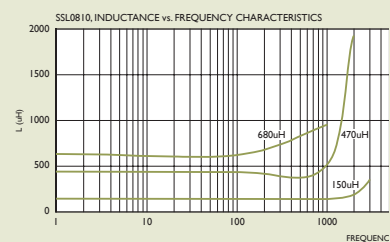
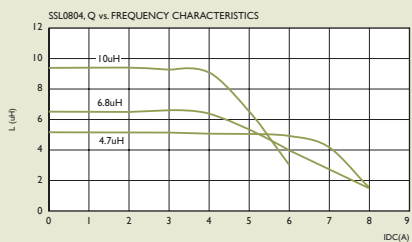
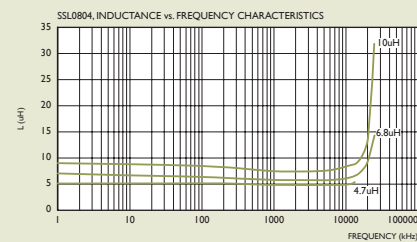
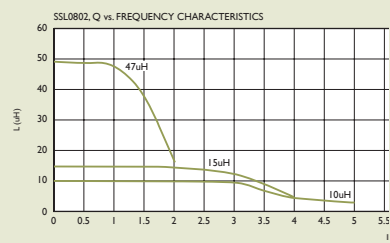
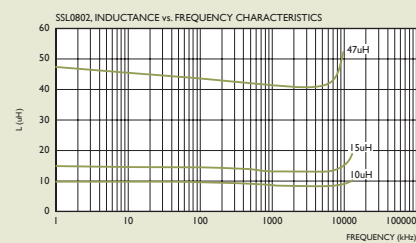
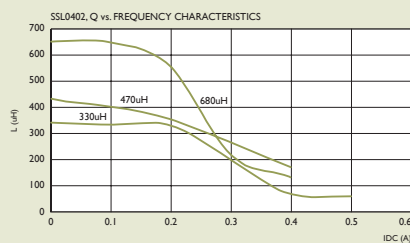
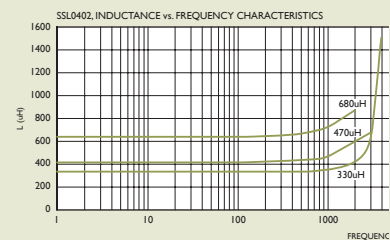
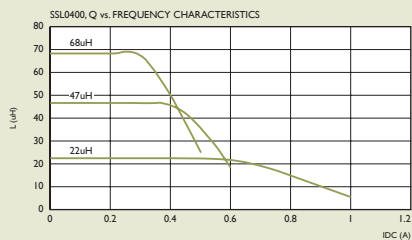
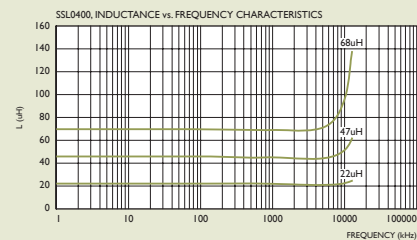
| NO.   | ITEM                               | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
|-------|------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------|-------------|---|-------------|----|---|------------|---|---|------------|----|---|------------|---|
| I-2-1 | Temperature Shock                  | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>L Change : within $\pm 30\%$<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to $-55^{\circ}\text{C}$<br>30Min. Exposure to $125\pm\text{C}$<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                      |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-2 | Temperature Cycle                  |                                                                                                                      | One Cycle <table><tr><th>Step</th><th>Temperature (<math>^{\circ}\text{C}</math>)</th><th>Time (Min.)</th></tr><tr><td>1</td><td><math>-25 \pm 3</math></td><td>30</td></tr><tr><td>2</td><td><math>25 \pm 2</math></td><td>3</td></tr><tr><td>3</td><td><math>85 \pm 3</math></td><td>30</td></tr><tr><td>4</td><td><math>25 \pm 2</math></td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.) | 1 | $-25 \pm 3$ | 30 | 2 | $25 \pm 2$ | 3 | 3 | $85 \pm 3$ | 30 | 4 | $25 \pm 2$ | 3 |
| Step  | Temperature ( $^{\circ}\text{C}$ ) | Time (Min.)                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 1     | $-25 \pm 3$                        | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 2     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 3     | $85 \pm 3$                         | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 4     | $25 \pm 2$                         | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-3 | Humidity Resistance                |                                                                                                                      | Temperature : $40 \pm 2^{\circ}\text{C}$<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                               |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-4 | High Temperature Resistance        |                                                                                                                      | Temperature : $85 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                 |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-5 | Low Temperature Resistance         |                                                                                                                      | Temperature : $-25 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                                    |      |                                    |             |   |             |    |   |            |   |   |            |    |   |            |   |



## TYPICAL ELECTRICAL CHARACTERISTICS

### Curves of SSL Series

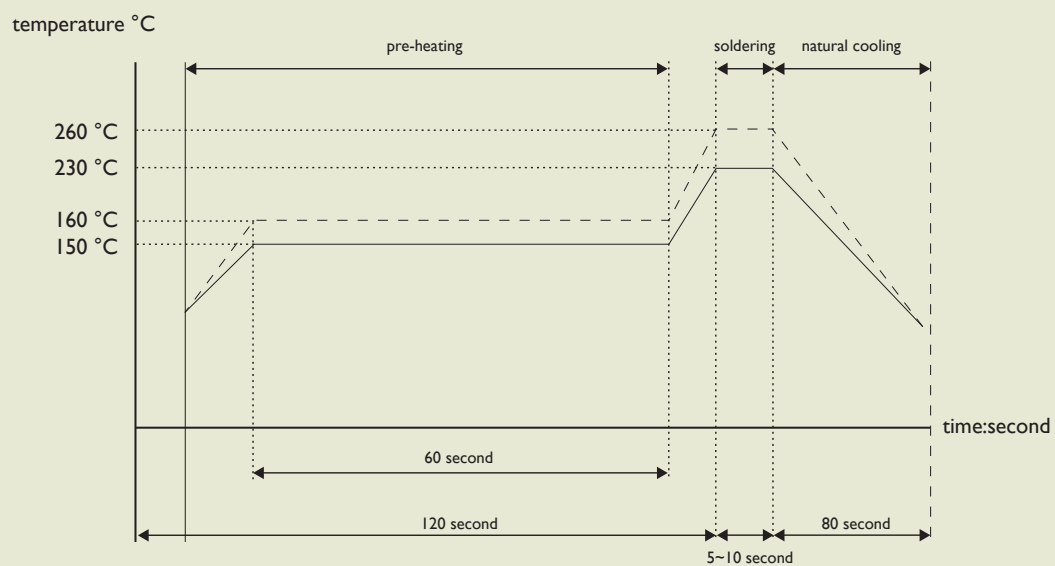
Test Instruments :





## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder      —————

for: lead-free solder      ··········

## SMD Power Inductors

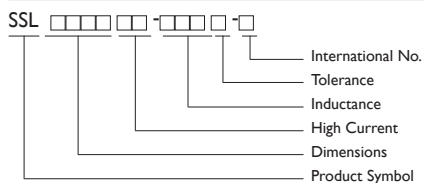
## SSL0503HC Series



## FEATURES

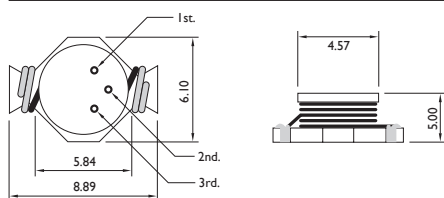
- For high current, low voltage DC-DC converter applications.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel, B : Bulk
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL\_HC Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. SSL0503HC-R56M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

These series have been specially designed for high current, low voltage DC-DC converter applications.

This simple, rugged design provides current ratings normally available only in much larger packages - up to 16Arms for a .33 $\mu$ H part. With its tinned self-leaded construction, the SSL0804HC achieves very low DCR values and excellent solderability. In addition to the standard parts shown, custom values are also available.

These inductors are less than .2" (5mm) high. They have very low resistance and a rugged self-leaded construction.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters, memory programmers. etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.         | INDUCTANCE<br>( $\mu$ H $\pm 20\%$ ) * | SRF **<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | Isat ***<br>(A) | Irms ****<br>(A) |
|------------------|----------------------------------------|-----------------|---------------------------------------|-----------------|------------------|
| SSL0503HC-R56M-S | 0.56                                   | 200             | 0.010                                 | 7.7             | 6.0              |
| SSL0503HC-1R2M-S | 1.2                                    | 140             | 0.017                                 | 5.3             | 4.4              |
| SSL0503HC-2R2M-S | 2.2                                    | 100             | 0.035                                 | 3.5             | 3.1              |
| SSL0503HC-4R7M-S | 4.7                                    | 50              | 0.054                                 | 2.6             | 2.2              |
| SSL0503HC-100M-S | 10                                     | 40              | 0.111                                 | 1.9             | 1.5              |
| SSL0503HC-150M-S | 15                                     | 30              | 0.17                                  | 1.5             | 1.2              |
| SSL0503HC-220M-S | 22                                     | 25              | 0.25                                  | 1.2             | 1.0              |
| SSL0503HC-330M-S | 33                                     | 20              | 0.37                                  | 0.99            | 0.82             |
| SSL0503HC-470M-S | 47                                     | 15              | 0.47                                  | 0.87            | 0.72             |

\* Inductance Tested at 0.25 Vrms, 100 KHz

\*\* SRF measured using HP8753D network analyzer.

\*\*\* Inductance Drop = 30% Typ. at Isat.

\*\*\*\*  $\Delta T = 40^\circ\text{C}$  Typ at Irms.

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$

Electrical Specifications at  $25^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.           | INDUCTANCE<br>(nH) | TOLERANCE<br>(±%) | R <sub>dc</sub><br>(Ω) | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|--------------------|--------------------|-------------------|------------------------|-------------------------|-------------------------|------------------|
| SSL0503HC-R18 □ -N | 0.18               | 20                | 0.0063+0               | 5.5                     | -                       | 330              |
| SSL0503HC-R56 □ -N | 0.56               | 20                | 0.010+0                | 7.7                     | 6                       | 200              |
| SSL0503HC-1R2 □ -N | 1.2                | 20                | 0.017+0                | 5.3                     | 4.4                     | 140              |
| SSL0503HC-2R2 □ -N | 2.2                | 20                | 0.035+0                | 3.5                     | 3.1                     | 100              |
| SSL0503HC-4R7 □ -N | 4.7                | 20                | 0.054+0                | 2.6                     | 2.2                     | 50               |
| SSL0503HC-100 □ -N | 10                 | 20                | 0.111+0                | 1.9                     | 1.5                     | 40               |
| SSL0503HC-150 □ -N | 15                 | 20                | 0.170+0                | 1.5                     | 1.2                     | 30               |
| SSL0503HC-220 □ -N | 22                 | 20                | 0.250+0                | 1.2                     | 1                       | 25               |
| SSL0503HC-330 □ -N | 33                 | 20                | 0.370+0                | 0.99                    | 0.82                    | 20               |
| SSL0503HC-470 □ -N | 47                 | 20                | 0.470+0                | 0.87                    | 0.72                    | 15               |

NOTE : □ -tolerance M=±20% / T=±30%

1. Operating temperature range -40°C~85°C

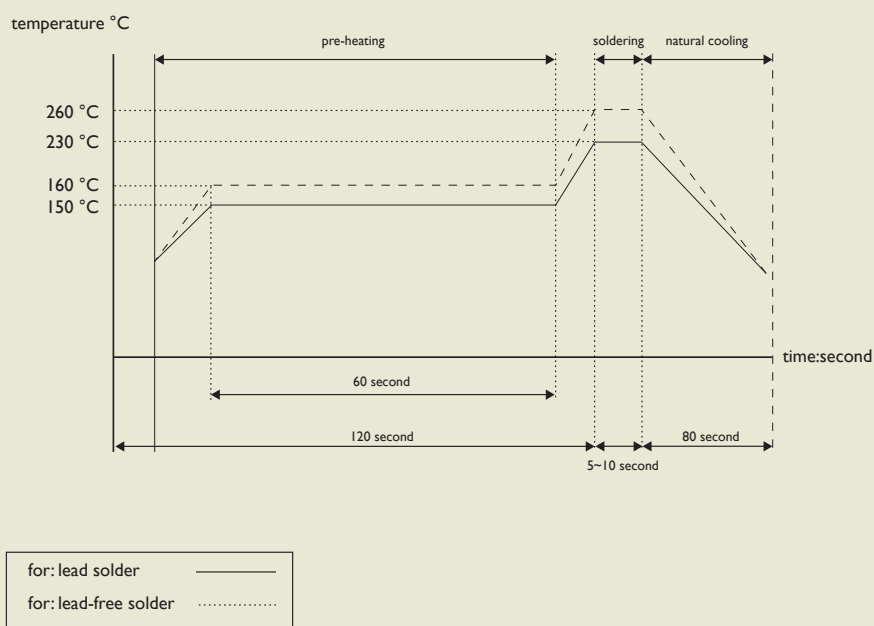
2. Inductance drop 30% typ. at last

4. ΔT=40°C rise typ. at I<sub>rms</sub>.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



## SMD Power Inductors

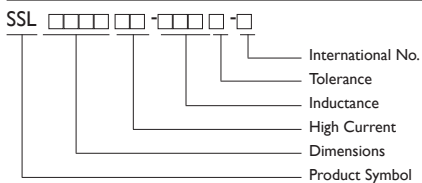
## SSL0804HC Series



## FEATURES

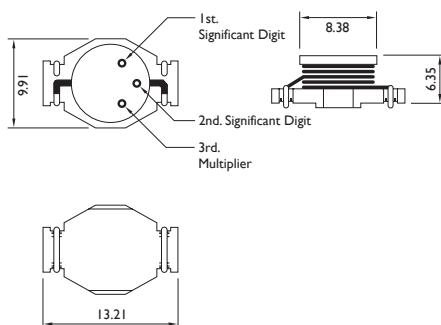
For high current, low voltage DC-DC converter applications.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel, B: Bulk
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL\_HC Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to 'N' as identification. Ex. SSL0503HC-R56M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

These series have been specially designed for high current, low voltage DC-DC converter applications.

This simple, rugged design provides current ratings normally available only in much larger packages - up to 16Arms for a .33 $\mu$ H part. With its tinned self-leaded construction, the SSL0804HC achieves very low DCR values and excellent solderability. In addition to the standard parts shown, custom values are also available.

These inductors are less than .2" (5mm) high. They have very low resistance and a rugged self-leaded construction.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters, memory programmers. etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.         | INDUCTANCE<br>( $\mu$ H $\pm 20\%$ ) * | SRF **<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | Isat ***<br>(A) | Irms ****<br>(A) |
|------------------|----------------------------------------|-----------------|---------------------------------------|-----------------|------------------|
| SSL0804HC-R33M-S | 0.33                                   | 300             | 0.002                                 | 20              | 16               |
| SSL0804HC-R68M-S | 0.68                                   | 200             | 0.005                                 | 13              | 12               |
| SSL0804HC-1R0M-S | 1.0                                    | 100             | 0.006                                 | 11              | 10               |
| SSL0804HC-1R5M-S | 1.5                                    | 90              | 0.008                                 | 9.0             | 9                |
| SSL0804HC-2R2M-S | 2.2                                    | 90              | 0.011                                 | 7.8             | 7.4              |
| SSL0804HC-2R7M-S | 2.7                                    | 65              | 0.012                                 | 7.0             | 6.6              |
| SSL0804HC-3R3M-S | 3.3                                    | 65              | 0.014                                 | 6.4             | 5.9              |
| SSL0804HC-4R7M-S | 4.7                                    | 45              | 0.018                                 | 5.4             | 4.8              |
| SSL0804HC-6R8M-S | 6.8                                    | 35              | 0.035                                 | 3.6             | 5.0              |
| SSL0804HC-100M-S | 10                                     | 26              | 0.04                                  | 3.3             | 4.3              |
| SSL0804HC-150M-S | 15                                     | 21              | 0.06                                  | 2.4             | 3.5              |
| SSL0804HC-220M-S | 22                                     | 17              | 0.08                                  | 2.0             | 2.8              |
| SSL0804HC-330M-S | 33                                     | 14              | 0.15                                  | 1.7             | 2.1              |
| SSL0804HC-470M-S | 47                                     | 12              | 0.28                                  | 1.4             | 1.7              |
| SSL0804HC-680M-S | 68                                     | 9               | 0.3                                   | 1.2             | 1.5              |
| SSL0804HC-101M-S | 100                                    | 7               | 0.4                                   | 0.95            | 1.2              |

\* Inductance Tested at 0.1 Vrms, 100 KHz

\*\* SRF measured using HP8753D network analyzer.

\*\*\* Inductance Drop = 10% Typ. at Isat.

\*\*\*\*  $\Delta T = 40^\circ\text{C}$  Typ at Irms.

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$

Electrical Specifications at  $25^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.           | INDUCTANCE<br>(nH) | TOLERANCE<br>(±%) | R <sub>dc</sub><br>(Ω) | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|--------------------|--------------------|-------------------|------------------------|-------------------------|-------------------------|------------------|
| SSL0804HC-R33 □ -N | 0.33               | 20                | 0.002+0                | 20                      | 16                      | 300              |
| SSL0804HC-R68 □ -N | 0.68               | 20                | 0.005+0                | 13                      | 12                      | 200              |
| SSL0804HC-1R0 □ -N | 1                  | 20                | 0.006+0                | 11                      | 10                      | 100              |
| SSL0804HC-1R5 □ -N | 1.5                | 20                | 0.008+0                | 9                       | 9                       | 90               |
| SSL0804HC-2R2 □ -N | 2.2                | 20                | 0.011+0                | 7.8                     | 7.4                     | 90               |
| SSL0804HC-2R7 □ -N | 2.7                | 20                | 0.012+0                | 7                       | 6.6                     | 65               |
| SSL0804HC-3R3 □ -N | 3.3                | 20                | 0.014+0                | 6.4                     | 5.9                     | 65               |
| SSL0804HC-4R7 □ -N | 4.7                | 20                | 0.018+0                | 5.4                     | 4.8                     | 45               |
| SSL0804HC-6R8 □ -N | 6.8                | 20                | 0.035+0                | 3.6                     | 5                       | 35               |
| SSL0804HC-100 □ -N | 10                 | 20                | 0.040+0                | 3.3                     | 4.3                     | 26               |
| SSL0804HC-150 □ -N | 15                 | 20                | 0.060+0                | 2.4                     | 3.5                     | 21               |
| SSL0804HC-220 □ -N | 22                 | 20                | 0.080+0                | 2                       | 2.8                     | 17               |
| SSL0804HC-330 □ -N | 33                 | 20                | 0.150+0                | 1.7                     | 2.1                     | 14               |
| SSL0804HC-470 □ -N | 47                 | 20                | 0.280+0                | 1.4                     | 1.7                     | 12               |
| SSL0804HC-680 □ -N | 68                 | 20                | 0.300+0                | 1.2                     | 1.5                     | 9                |
| SSL0804HC-101 □ -N | 100                | 20                | 0.400+0                | 0.95                    | 1.2                     | 7                |

NOTE : □ -tolerance M=±20% / T=±30%

1. Operating temperature range -40°C~85°C

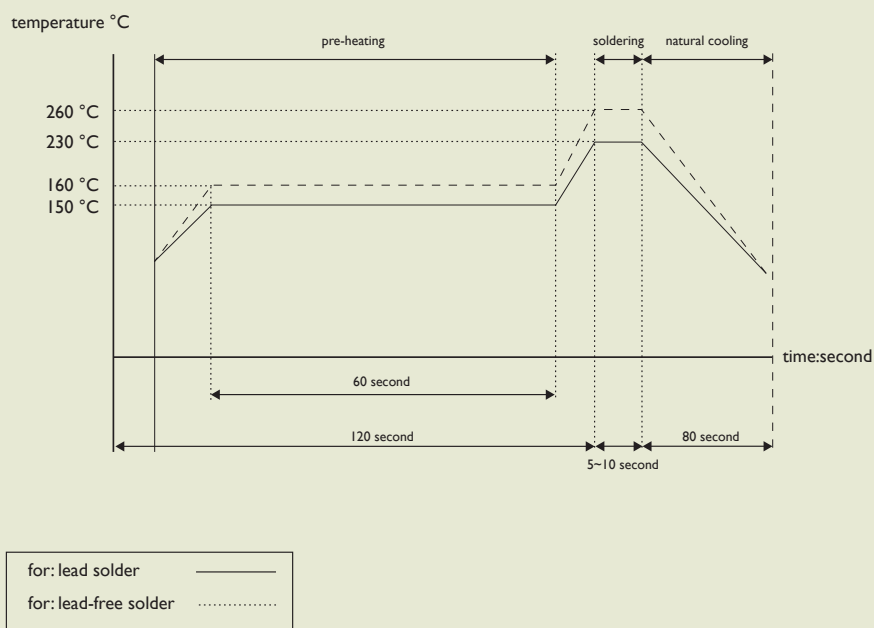
2. Inductance drop 10% typ. at last

4. ΔT=40°C rise typ. at I<sub>rms</sub>.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)

## RECOMMEND SOLDERING CONDITIONS

for: CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



## SMD Power Inductors

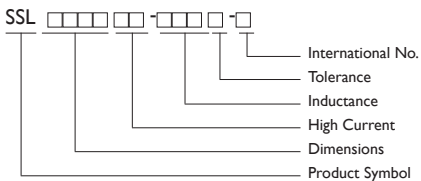
## SSL I 306HC Series



## FEATURES

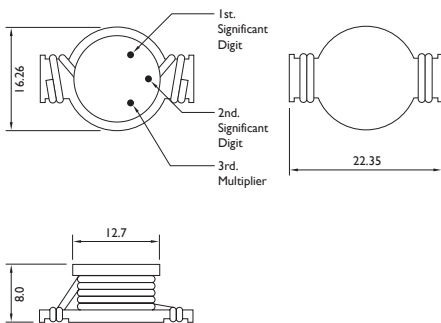
For high current, low voltage DC-DC converter applications.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel, B: Bulk
- Tolerance: M:  $\pm 20\%$
- Note: YAGEO will start to release SSL\_HC Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to 'N' as identification. Ex. SSL0503HC-R56M-N

## SHAPES AND DIMENSIONS



Dimensions : mm

These series have been specially designed for high current, low voltage DC-DC converter applications.

This simple, rugged design provides current ratings normally available only in much larger packages - up to 16 Arms for a .33  $\mu$ H part. With its tinned self-leaded construction, the SSL0804HC achieves very low DCR values and excellent solderability. In addition to the standard parts shown, custom values are also available.

These inductors are less than .2' (5mm) high. They have very low resistance and a rugged self-leaded construction.

## APPLICATIONS

Notebook computers, Sep-up and step-down converters, memory programmers. etc...

## ELECTRICAL CHARACTERISTICS

| PART NO.         | INDUCTANCE<br>( $\mu$ H $\pm 20\%$ )* | SRF<br>(MHz) | DC<br>RESISTANCE<br>( $\Omega$ ) Max. | Isat **<br>(A) | Irms ***<br>(A) |
|------------------|---------------------------------------|--------------|---------------------------------------|----------------|-----------------|
| SSLI306HC-R78M-S | 0.78                                  | 156          | 2.6                                   | 30             | 15              |
| SSLI306HC-1R5M-S | 1.5                                   | 100          | 4.0                                   | 25             | 15              |
| SSLI306HC-2R2M-S | 2.2                                   | 75           | 6.1                                   | 20             | 12              |
| SSLI306HC-3R3M-S | 3.3                                   | 60           | 8.6                                   | 17             | 10              |
| SSLI306HC-3R9M-S | 3.9                                   | 55           | 10                                    | 15             | 9.0             |
| SSLI306HC-4R7M-S | 4.7                                   | 40           | 14                                    | 13             | 8.4             |
| SSLI306HC-6R0M-S | 6.0                                   | 35           | 17                                    | 12             | 7.5             |
| SSLI306HC-7R8M-S | 7.8                                   | 35           | 18                                    | 11             | 7.5             |
| SSLI306HC-100M-S | 10                                    | 28           | 26                                    | 10             | 6.0             |
| SSLI306HC-150M-S | 15                                    | 20           | 32                                    | 8              | 4.4             |

\* L : Tested at 0.1 Vrms, 100 KHz (HP-4192A)

\*\* Isat : Inductance Drop = 10% Typ.

\*\*\*  $\Delta T = 40^\circ\text{C}$  Typ at Irms.

Operating Temperature Range  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.           | INDUCTANCE<br>(nH) | TOLERANCE<br>(±%) | R <sub>dc</sub><br>(Ω) | I <sub>sat</sub><br>(A) | I <sub>rms</sub><br>(A) | SRF<br>(KHz)Typ. |
|--------------------|--------------------|-------------------|------------------------|-------------------------|-------------------------|------------------|
| SSLI306HC-R78 □ -N | 0.78               | 20                | 0.0026+0               | 30TYP.                  | 15                      | 156              |
| SSLI306HC-1R5 □ -N | 1.5                | 20                | 0.0040+0               | 25TYP.                  | 15                      | 100              |
| SSLI306HC-2R2 □ -N | 2.2                | 20                | 0.0061+0               | 20TYP.                  | 12                      | 75               |
| SSLI306HC-3R3 □ -N | 3.3                | 20                | 0.0086+0               | 17TYP.                  | 10                      | 60               |
| SSLI306HC-3R9 □ -N | 3.9                | 20                | 0.0100+0               | 15TYP.                  | 9                       | 55               |
| SSLI306HC-4R7 □ -N | 4.7                | 20                | 0.0140+0               | 13TYP.                  | 8.4                     | 40               |
| SSLI306HC-6R0 □ -N | 6                  | 20                | 0.0170+0               | 12TYP.                  | 7.5                     | 35               |
| SSLI306HC-7R8 □ -N | 7.8                | 20                | 0.0180+0               | 11TYP.                  | 7.5                     | 35               |
| SSLI306HC-100 □ -N | 10                 | 20                | 0.0260+0               | 10TYP.                  | 6                       | 28               |
| SSLI306HC-150 □ -N | 15                 | 20                | 0.0320+0               | 8TYP.                   | 4.4                     | 20               |

NOTE : □ -tolerance M=±20% / T=±30%

1. Operating temperature range -40°C~85°C

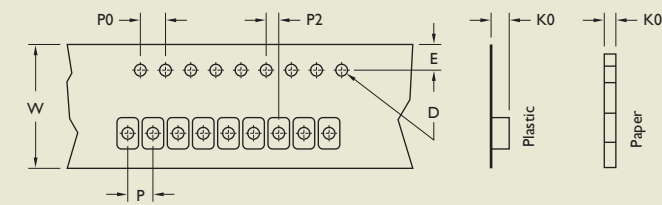
2. Inductance drop 10% typ. at last

3. ΔT=40°C rise typ. at I<sub>rms</sub>.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

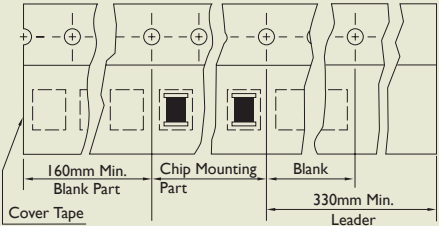


TAPE DIMENSIONS

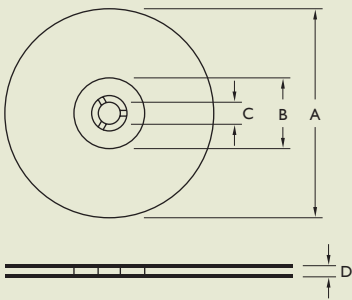


TAPE MATERIAL

Carrier Tape : Polystyrene      Cover Type : Polyethylene

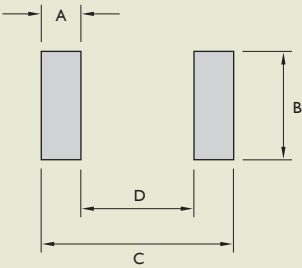


REEL DIMENSIONS



RECOMMENDED PATTERN

Land Pattern



| Dimensions : mm |                 |      |      |    |    |    |    |                     |       |       |       |                 |     |     |    |                |      |
|-----------------|-----------------|------|------|----|----|----|----|---------------------|-------|-------|-------|-----------------|-----|-----|----|----------------|------|
| TYPE            | TAPE DIMENSIONS |      |      |    |    |    |    | RECOMMENDED PATTERN |       |       |       | REEL DIMENSIONS |     |     |    | QUANTITY /REEL |      |
|                 | K0              | D    | E    | W  | P  | P0 | P2 | UNIT                | A     | B     | C     | D               | A   | B   | C  |                | D    |
| SSL0503HC       | 5.3             | 1.55 | 1.75 | 16 | 12 | 4  | 2  | In                  | 0.075 | 0.160 | 0.350 | 0.200           | 330 | 100 | 13 | 17.4           | 1000 |
|                 |                 |      |      |    |    |    |    | mm                  | 1.91  | 4.06  | 8.89  | 5.08            |     |     |    |                |      |
| SSL0804HC       | 6.1             | 1.55 | 1.75 | 24 | 16 | 4  | 2  | In                  | 0.060 | 0.160 | 0.460 | 0.34            | 330 | 100 | 13 | 24.2           | 750  |
|                 |                 |      |      |    |    |    |    | mm                  | 1.521 | 4.06  | 11.68 | 8.64            |     |     |    |                |      |
| SSL1306HC       | 7.2             | 1.55 | 1.75 | 44 | 24 | 4  | 2  | In                  | 0.125 | 0.340 | 0.820 | 0.560           | 330 | 100 | 13 | 45.4           | 250  |
|                 |                 |      |      |    |    |    |    | mm                  | 3.18  | 8.64  | 20.71 | 14.35           |     |     |    |                |      |



## SSL SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

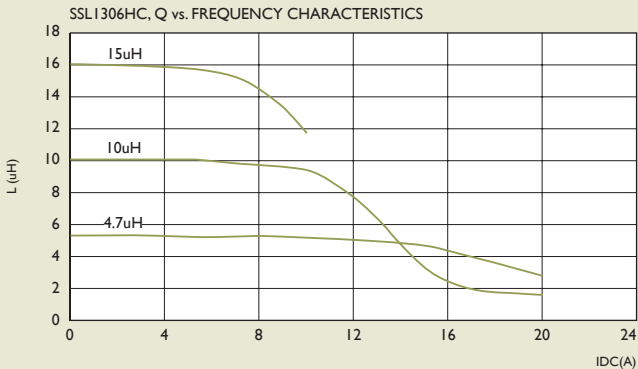
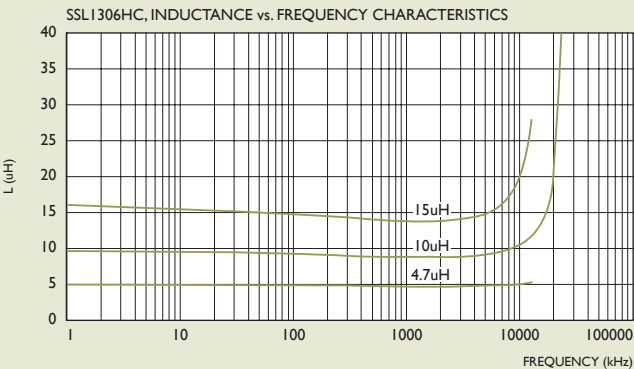
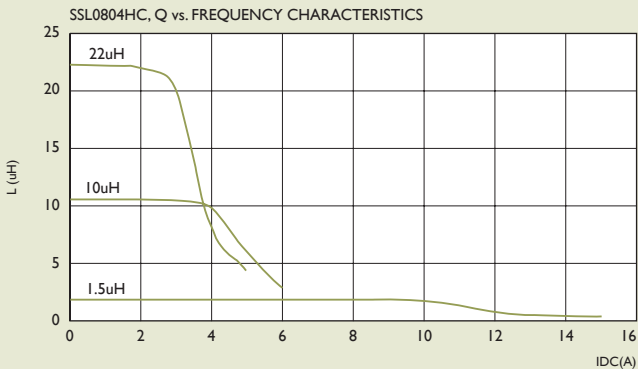
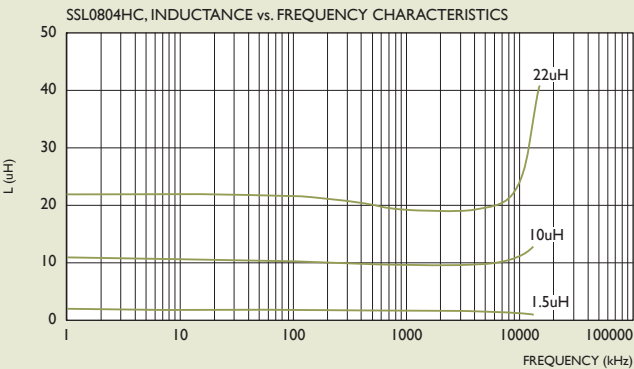
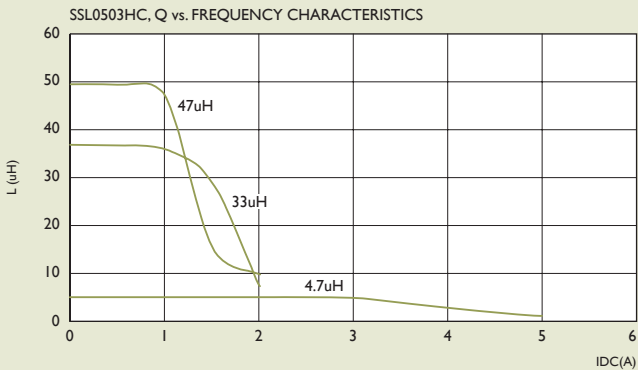
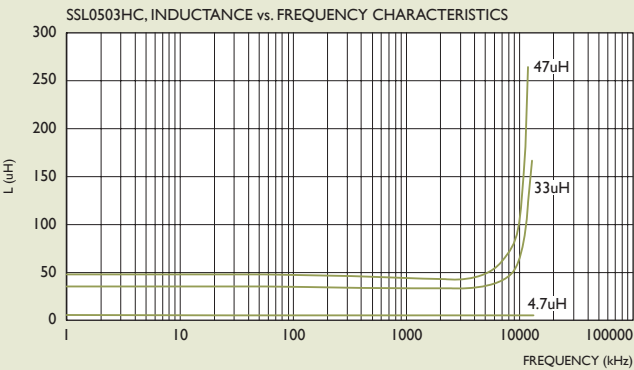
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                             | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
|-------|----------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------|-------------|---|-------------|----|---|------------|---|---|------------|----|---|------------|---|
| I-2-1 | Temperature Shock                | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>L Change : within $\pm 30\%$<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to $-55^{\circ}\text{C}$<br>30Min. Exposure to $125^{\circ}\text{C}$<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                               |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-2 | Temperature Cycle                |                                                                                                                      | One Cycle <table><tr><th>Step</th><th>Temperature (<math>\Delta\text{C}</math>)</th><th>Time (Min.)</th></tr><tr><td>1</td><td><math>-25 \pm 3</math></td><td>30</td></tr><tr><td>2</td><td><math>25 \pm 2</math></td><td>3</td></tr><tr><td>3</td><td><math>85 \pm 3</math></td><td>30</td></tr><tr><td>4</td><td><math>25 \pm 2</math></td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature ( $\Delta\text{C}$ ) | Time (Min.) | 1 | $-25 \pm 3$ | 30 | 2 | $25 \pm 2$ | 3 | 3 | $85 \pm 3$ | 30 | 4 | $25 \pm 2$ | 3 |
| Step  | Temperature ( $\Delta\text{C}$ ) | Time (Min.)                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 1     | $-25 \pm 3$                      | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 2     | $25 \pm 2$                       | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 3     | $85 \pm 3$                       | 30                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| 4     | $25 \pm 2$                       | 3                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-3 | Humidity Resistance              |                                                                                                                      | Temperature : $40 \pm 2^{\circ}\text{C}$<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                             |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-4 | High Temperature Resistance      |                                                                                                                      | Temperature : $85 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                               |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |
| I-2-5 | Low Temperature Resistance       |                                                                                                                      | Temperature : $-25 \pm 3^{\circ}\text{C}$<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                                                                                                  |      |                                  |             |   |             |    |   |            |   |   |            |    |   |            |   |



TYPICAL ELECTRICAL CHARACTERISTICS

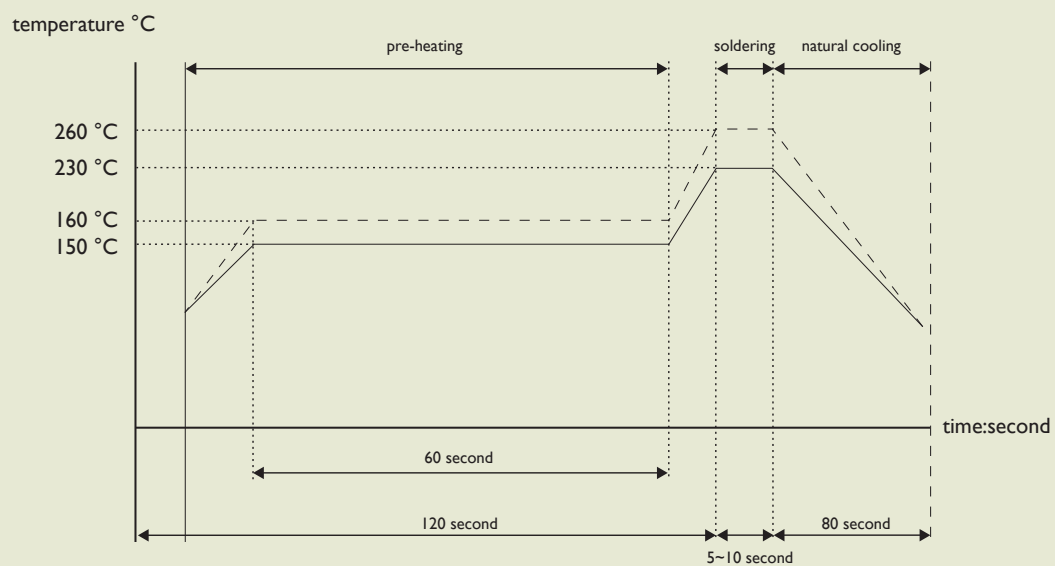
Curves of SSL Series





## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters, Transformers, Current Sensors



for: lead solder —————

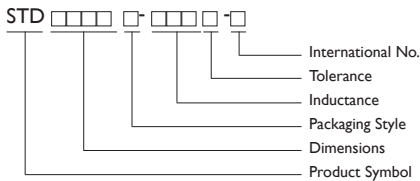
for: lead-free solder .....

## SMD Power Inductors

## STD0804 Series

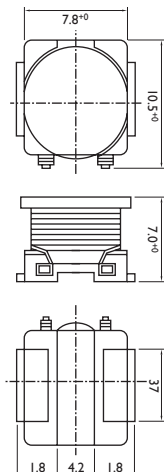


## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M=±20%
- Note: YAGEO will start to release STD Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. STD0804T-100M-B-N

## SHAPES AND DIMENSIONS



Dimensions : mm

Yageo SMD power inductors are best designed for noise / EMI / RFI filters for surface mounting applications.

These components contain tremendous electrode straight, solder heat resistance and outstanding solderability. These products are specially designed for flow, reflow and wave soldering required for surface mounting applications.

## APPLICATIONS

Power supply, power amplifiers  
Switching regulators.

## FEATURES

For high current applications.  
Specially designed for high density surface applications.  
Ideal for solder flow, reflow and wave soldering applications.

## ELECTRICAL CHARACTERISTICS

| PART NO.        | INDUCTANCE *<br>( $\mu\text{H} \pm 10\%$ ) | DC RESISTANCE<br>( $\Omega^{+0}$ ) | RATED CURRENT<br>(mA) |
|-----------------|--------------------------------------------|------------------------------------|-----------------------|
| STD0804T-560K-S | 56                                         | 0.25                               | 900                   |
| STD0804T-680K-S | 68                                         | 0.30                               | 800                   |
| STD0804T-820K-S | 82                                         | 0.37                               | 700                   |
| STD0804T-101K-S | 100                                        | 0.38                               | 600                   |
| STD0804T-121K-S | 120                                        | 0.58                               | 550                   |
| STD0804T-151K-S | 150                                        | 0.72                               | 500                   |
| STD0804T-181K-S | 180                                        | 0.80                               | 450                   |
| STD0804T-221K-S | 220                                        | 0.83                               | 400                   |
| STD0804T-271K-S | 270                                        | 1.10                               | 350                   |
| STD0804T-331K-S | 330                                        | 1.15                               | 300                   |

\* Tested at HP4263A 1KHz, 1 Volt.

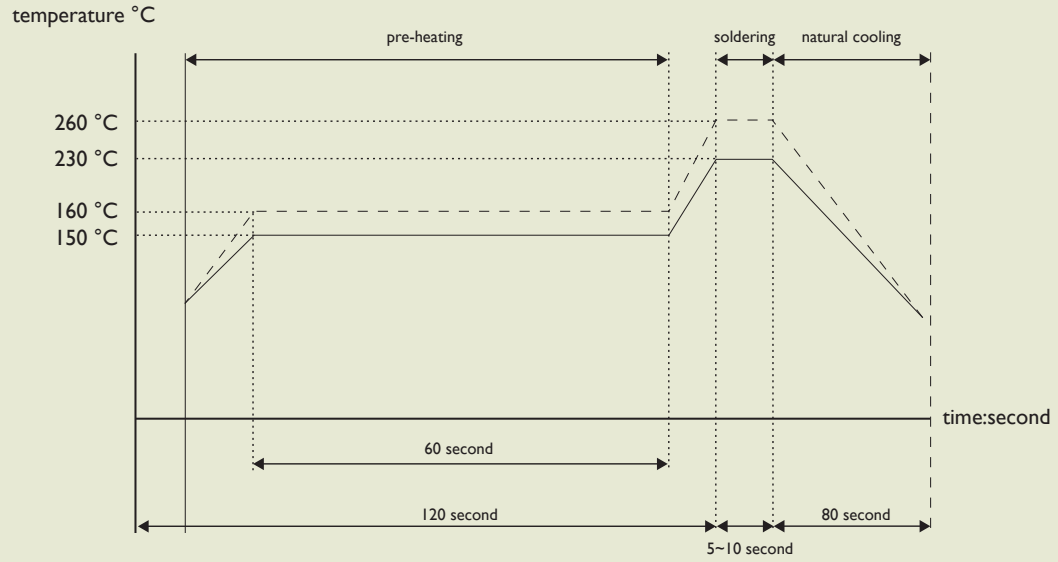
\*\* Inductance Drop = 10% Typ. at Rated Isat.

Operating Temperature Range -40°C to +85°C



## RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder      —————

for: lead-free solder      ··········

## SMD Power Inductors

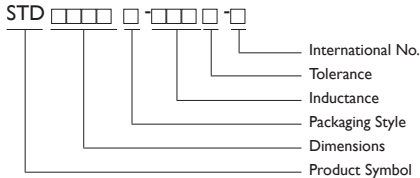
## STD1109 Series



## FEATURES

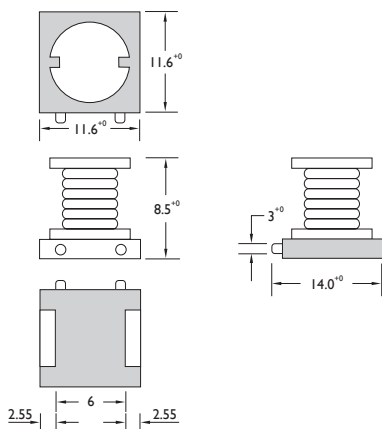
- Power supply, power amplifiers
- Switching regulators.

## PRODUCT IDENTIFICATION



- Packaging: T: Tape and Reel
- Tolerance: M=±20%
- Note: YAGEO will start to release STD Series inductors with lead-free terminals which meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No will be changed to "N" as identification. Ex. STD1109T-100M-B-N

## SHAPES AND DIMENSIONS



Yageo SMD power inductors are best designed for noise / EMI / RFI filters for surface mounting applications.

These components contain tremendous electrode straight, solder heat resistance and outstanding solderability. These products are specially designed for flow, reflow and wave soldering required for surface mounting applications.

## APPLICATIONS

- For high current applications.
- Specially designed for high density surface applications.
- Ideal for solder flow, reflow and wave soldering applications.

## ELECTRICAL CHARACTERISTICS

| PART NO.          | INDUCTANCE<br>( $\mu\text{H} \pm 20\%$ )* | DC<br>RESISTANCE<br>( $\Omega$ ) | RATED<br>CURRENT<br>(A) Max. |
|-------------------|-------------------------------------------|----------------------------------|------------------------------|
| STD1109T-100M-B-S | 10                                        | 0.06                             | 3.50                         |
| STD1109T-120M-B-S | 12                                        | 0.07                             | 3.40                         |
| STD1109T-150M-B-S | 15                                        | 0.08                             | 3.10                         |
| STD1109T-180M-B-S | 18                                        | 0.09                             | 3.00                         |
| STD1109T-220M-B-S | 22                                        | 0.10                             | 2.60                         |
| STD1109T-270M-B-S | 27                                        | 0.11                             | 2.40                         |
| STD1109T-330M-B-S | 33                                        | 0.12                             | 2.30                         |
| STD1109T-390M-B-S | 39                                        | 0.14                             | 2.10                         |
| STD1109T-470M-B-S | 47                                        | 0.17                             | 1.95                         |
| STD1109T-560M-B-S | 56                                        | 0.19                             | 1.85                         |
| STD1109T-680M-B-S | 68                                        | 0.22                             | 1.65                         |
| STD1109T-820M-B-S | 82                                        | 0.25                             | 1.50                         |
| STD1109T-101M-B-S | 100                                       | 0.35                             | 1.40                         |
| STD1109T-121M-B-S | 120                                       | 0.40                             | 1.30                         |
| STD1109T-151M-B-S | 150                                       | 0.47                             | 1.20                         |
| STD1109T-181M-B-S | 180                                       | 0.63                             | 1.00                         |
| STD1109T-221M-B-S | 220                                       | 0.73                             | 0.95                         |
| STD1109T-271M-B-S | 270                                       | 0.97                             | 0.90                         |
| STD1109T-331M-B-S | 330                                       | 1.15                             | 0.80                         |
| STD1109T-391M-B-S | 390                                       | 1.30                             | 0.75                         |
| STD1109T-471M-B-S | 470                                       | 1.48                             | 0.65                         |
| STD1109T-561M-B-S | 560                                       | 1.90                             | 0.60                         |
| STD1109T-681M-B-S | 680                                       | 2.45                             | 0.50                         |
| STD1109T-821M-B-S | 820                                       | 2.55                             | 0.48                         |
| STD1109T-102M-B-S | 1000                                      | 3.00                             | 0.46                         |
| STD1109T-122M-B-S | 1200                                      | 3.50                             | 0.35                         |

Test Instruments : HP4261 RF Impedance for L, IDC

Digital Multimeter SC-7401 for RDC

\*Test at HP4263A 1KHz, 1Volt



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO.            | INDUCTANCE<br>(nH±20%) | TEST FREQ<br>(MHZ) | Rdc<br>(Ω)Max | IDC<br>(A)Max. |
|---------------------|------------------------|--------------------|---------------|----------------|
| STD1109T-100 □ -B-N | 10                     | 1KHz, IV           | 0.06          | 3.5            |
| STD1109T-120 □ -B-N | 12                     | 1KHz, IV           | 0.07          | 3.4            |
| STD1109T-150 □ -B-N | 15                     | 1KHz, IV           | 0.08          | 3.1            |
| STD1109T-180 □ -B-N | 18                     | 1KHz, IV           | 0.09          | 3              |
| STD1109T-220 □ -B-N | 22                     | 1KHz, IV           | 0.1           | 2.6            |
| STD1109T-270 □ -B-N | 27                     | 1KHz, IV           | 0.11          | 2.4            |
| STD1109T-330 □ -B-N | 33                     | 1KHz, IV           | 0.12          | 2.3            |
| STD1109T-390 □ -B-N | 39                     | 1KHz, IV           | 0.14          | 2.1            |
| STD1109T-470 □ -B-N | 47                     | 1KHz, IV           | 0.17          | 1.95           |
| STD1109T-560 □ -B-N | 56                     | 1KHz, IV           | 0.19          | 1.85           |
| STD1109T-590 □ -B-N | 68                     | 1KHz, IV           | 0.22          | 1.65           |
| STD1109T-820 □ -B-N | 82                     | 1KHz, IV           | 0.25          | 1.5            |
| STD1109T-101 □ -B-N | 100                    | 1KHz, IV           | 0.35          | 1.4            |
| STD1109T-121 □ -B-N | 120                    | 1KHz, IV           | 0.4           | 1.3            |
| STD1109T-151 □ -B-N | 150                    | 1KHz, IV           | 0.47          | 1.2            |
| STD1109T-181 □ -B-N | 180                    | 1KHz, IV           | 0.63          | 1              |
| STD1109T-221 □ -B-N | 220                    | 1KHz, IV           | 0.73          | 0.95           |
| STD1109T-271 □ -B-N | 270                    | 1KHz, IV           | 0.97          | 0.9            |
| STD1109T-331 □ -B-N | 330                    | 1KHz, IV           | 1.15          | 0.8            |
| STD1109T-391 □ -B-N | 390                    | 1KHz, IV           | 1.3           | 0.75           |
| STD1109T-471 □ -B-N | 470                    | 1KHz, IV           | 1.48          | 0.65           |
| STD1109T-561 □ -B-N | 560                    | 1KHz, IV           | 1.9           | 0.6            |
| STD1109T-681 □ -B-N | 680                    | 1KHz, IV           | 2.45          | 0.5            |
| STD1109T-821 □ -B-N | 820                    | 1KHz, IV           | 2.55          | 0.48           |
| STD1109T-102 □ -B-N | 1000                   | 1KHz, IV           | 3             | 0.46           |
| STD1109T-122 □ -B-N | 1200                   | 1KHz, IV           | 3.5           | 0.35           |

NOTE : □ -tolerance M=±20% / T=±30%

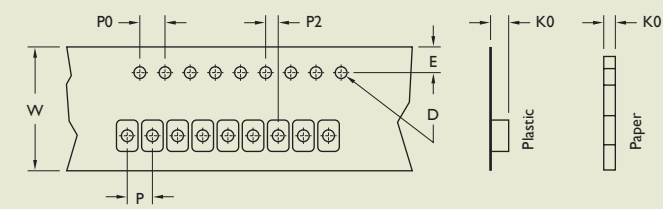
1. Operating temperature range -40°C~85°C

3. Inductance drop =10% typ.

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

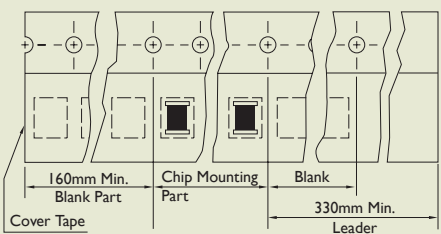


TAPE DIMENSIONS

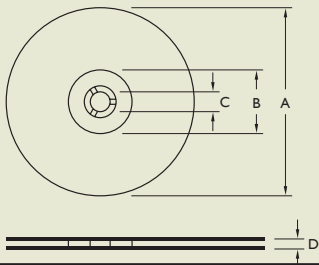


TAPE MATERIAL

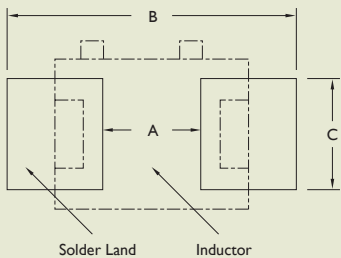
Carrier Tape : Polystyrene      Cover Type : Polyethylene



REEL DIMENSIONS



RECOMMENDED PATTERN

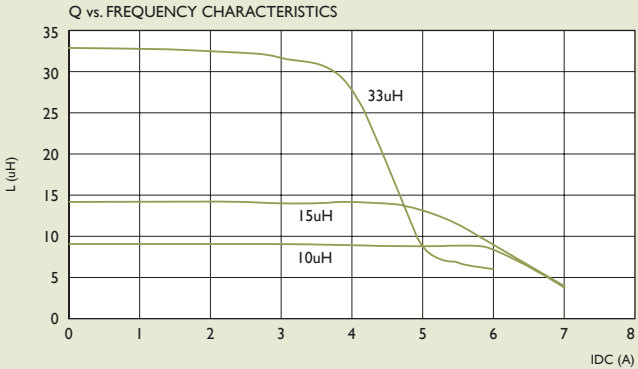
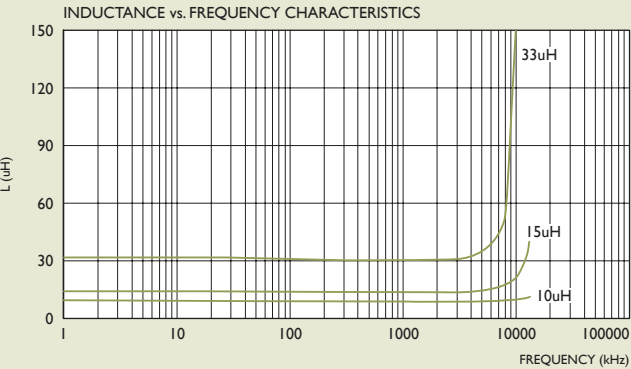


|         |            |      |      |    |    |    |    |             |       |     |            |     |    |      | Dimensions : mm |
|---------|------------|------|------|----|----|----|----|-------------|-------|-----|------------|-----|----|------|-----------------|
| TYPE    | TAPE       |      |      |    |    |    |    | RECOMMENDED |       |     | REEL       |     |    |      | QUANTITY        |
|         | DIMENSIONS |      |      |    |    |    |    | PATTERN     |       |     | DIMENSIONS |     |    |      | /REEL           |
|         | K0         | D    | E    | W  | P  | P0 | P2 | A           | B     | C   | A          | B   | C  | D    |                 |
| STD0804 | 5.4        | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 4.0         | 9     | 4.5 | 330        | 100 | 13 | 24.4 | 750             |
| STD1109 | 8.7        | 1.55 | 1.75 | 24 | 20 | 4  | 2  | 6           | 12~14 | 5   | 330        | 100 | 13 | 24.4 | 400             |

Dimensions : mm

TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT

Test instruments : HP4191A RF Impedance Analyzer





## STD SERIES RELIABILITY TEST

### I-1 MECHANICAL PERFORMANCE

| NO.   | ITEM                         | SPECIFICATION                                                                                                        | TEST CONDITIONS                                                                                                                                                                 |
|-------|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-1-1 | Vibration                    | Appearance : No Damage<br>L Change : within $\pm 10\%$<br>Q Change : within $\pm 30\%$<br>RDC : within Specification | Test device shall be soldered on the substrate.<br>Oscillation Frequency : 10 to 55 to 10Hz for 1Min.<br>Amplitude : 1.5mm<br>Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage                                                                                               | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 $\pm$ 5°C<br>Immersion Time : 10 $\pm$ 1Sec.                                       |
| I-1-3 | Solderability                | The electrodes shall be at least 90% covered with new solder coating.                                                | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 230 $\pm$ 5°C<br>Immersion Time : 4 $\pm$ 1Sec.                                        |

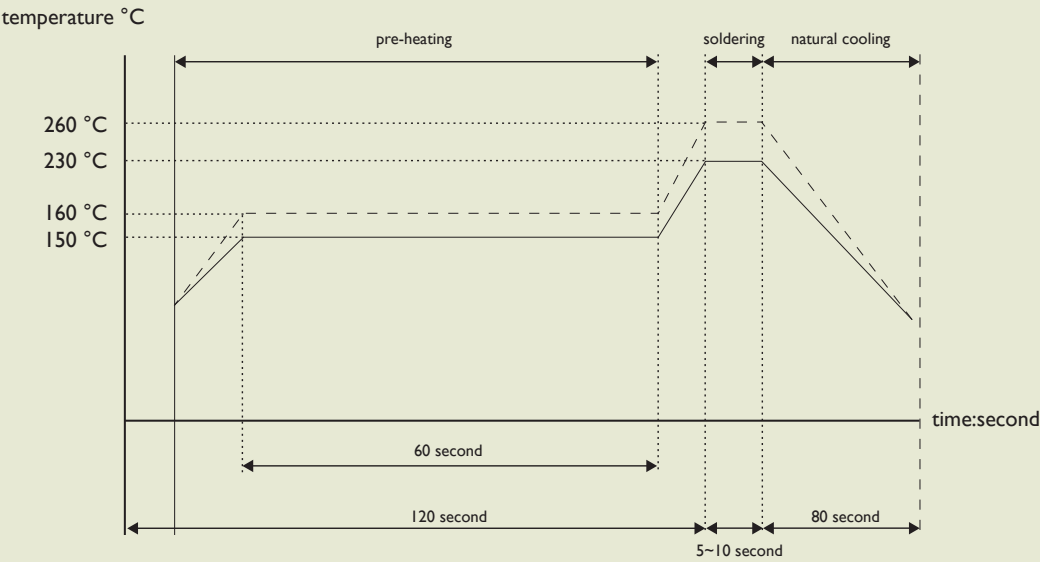
### I-2 ENVIRONMENTAL PERFORMANCE

| NO.   | ITEM                        | SPECIFICATION                                                                                            | TEST CONDITIONS                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
|-------|-----------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-------------|---|---------|----|---|--------|---|---|--------|----|---|--------|---|
| I-2-1 | Temperature Shock           | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to 125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-2 | Temperature Cycle           |                                                                                                          | One Cycle <table><tr><th>Step</th><th>Temperature (°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-25 ± 3</td><td>30</td></tr><tr><td>2</td><td>25 ± 2</td><td>3</td></tr><tr><td>3</td><td>85 ± 3</td><td>30</td></tr><tr><td>4</td><td>25 ± 2</td><td>3</td></tr></table> Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature (°C) | Time (Min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 3 | 3 | 85 ± 3 | 30 | 4 | 25 ± 2 | 3 |
| Step  | Temperature (°C)            | Time (Min.)                                                                                              |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 1     | -25 ± 3                     | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 2     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 3     | 85 ± 3                      | 30                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| 4     | 25 ± 2                      | 3                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-3 | Humidity Resistance         |                                                                                                          | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                          |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-4 | High Temperature Resistance |                                                                                                          | Temperature : 85 ± 3°C<br>Relative Humidity : 20%<br>Applied Current : Rated Current<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                            |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |
| I-2-5 | Low Temperature Resistance  |                                                                                                          | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs.                                                                                                                                                                                                                               |      |                  |             |   |         |    |   |        |   |   |        |    |   |        |   |



RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder      \_\_\_\_\_  
for: lead-free solder      .....