# INDEX



YAGEO CORPORATION

ISO-9002 Certified

DIP Power Inductors

# MBPL Series

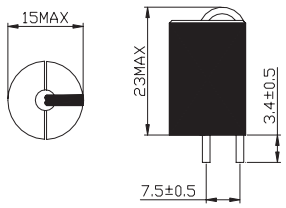
## PRODUCT IDENTIFICATION

MBPL □□□ □- □□□- □ □

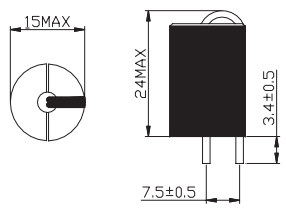
- Internal No.
- Tolerance
- Inductance
- Packaging(B:bulk)
- Dimensions
- Product Symbol

## SHAPE AND DIMENSIONS

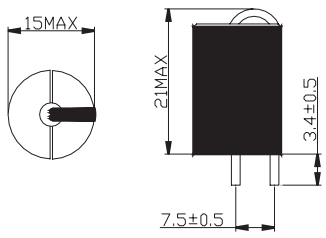
MBPL1319




MBPL1220




MBPL1217




Dimensions : mm

## FEATURES

- Magnetic shielded construction for high density board assembly
- High performance execllent 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-1R2M-N | 1.20 | 20% | 100 | | 1.0 | 35 |
| MBPL1220B-1R2M-N | 1.20 | 20% | 100 | | 1.8 | 30 |
| MBPL1220B-1R5M-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.

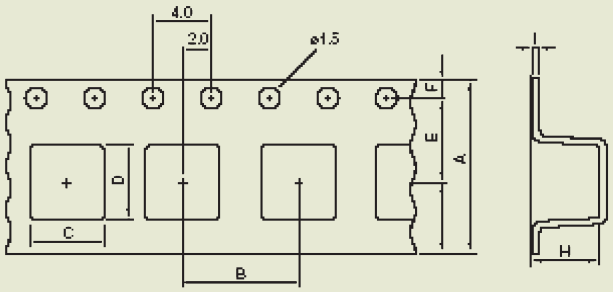
Ex : PMC129- R60M-S Tolerance: M±20%, L±15%, K±10% Packaging: Clear Tape and Reel (Standard)

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

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

## TAPE DIMENSIONS

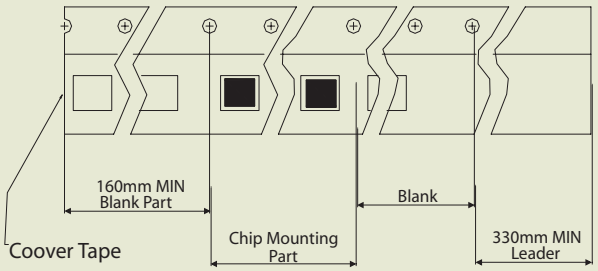
**Dimensions : mm**



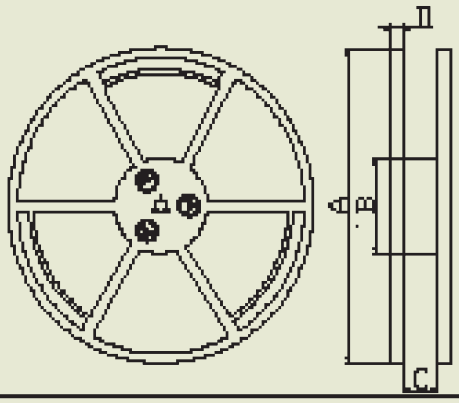

## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

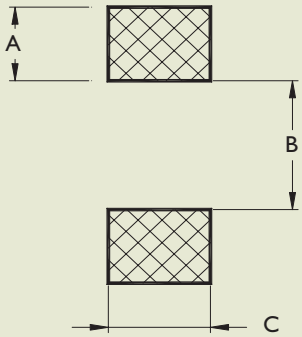



## REEL DIMENSIONS




## 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

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance :No Damage<br>L Change :within±10%<br>Q Change :within±30%<br>RDC:within Specificadion | 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 |
| 1-1-2 | 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. |
| 1-1-3 | 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. |

### 1-2 ENVIRONMENTAL PERFORMANCE

| NO | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance: No Damage<br>L Change: within ±10%<br>L Change: within ± 30%<br>RDC: within Specifl cation | 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. |
| 1-2-2 | Temperature Cycle | | One Cycle |

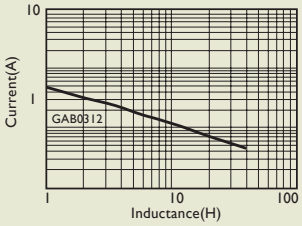
| Step | Temperature(°C) | Time (Min.) |
|---|---|---|
| 1 | -25±3 | 30 |
| 2 | 25±2 | 3 |
| 3 | 85±3 | 30 |
| 4 | 25±2 | 3 |

| | | | |
|---|---|---|---|
| | | | Total: 100Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | | Temperature: 40±2°C<br>Relative Humidity: 90~95%<br>Time: 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | 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)

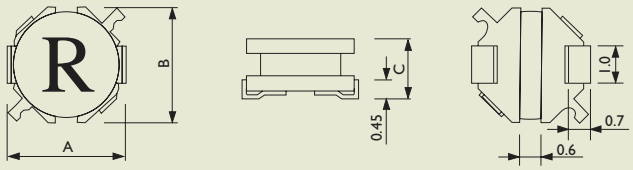
## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N | Inductance L(μH)[1] | DCR (Ω) ±20% | IDC (A) MAX.[2] | Marking |
|---|---|---|---|---|
| GAB0312T-1R0N-N | 1.0±30% | 0.08 | 1.40 | A |
| GAB0312T-1R8N-N | 1.8±30% | 0.11 | 1.10 | C |
| GAB0312T-2R2N-N | 2.2±30% | 0.12 | 1.00 | D |
| GAB0312T-2R7N-N | 2.7±30% | 0.15 | 0.95 | E |
| GAB0312T-4R7N-N | 4.7±30% | 0.28 | 0.75 | H |
| GAB0312T-5R6N-N | 5.6±30% | 0.31 | 0.68 | I |
| GAB0312T-6R8N-N | 6.8±30% | 0.36 | 0.62 | K |
| GAB0312T-7R5N-N | 7.5±30% | 0.39 | 0.60 | L |
| GAB0312T-100M-N | 10±20% | 0.43 | 0.53 | M |
| GAB0312T-150M-N | 15±20% | 0.72 | 0.44 | O |
| GAB0312T-220M-N | 22±20% | 1.18 | 0.33 | R |
| GAB0312T-330M-N | 33±20% | 1.90 | 0.26 | T |
| GAB0312T-470M-N | 47±20% | 2.45 | 0.23 | V |
| GAB0312T-680M-N | 68±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 : ±20% , N : ±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±0.3 | 3.2±0.3 | 1.2MAX |

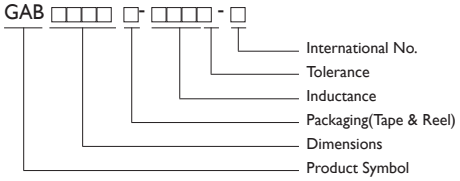

## FEATURES

- Low profile 1.2mm max.
- Maximun currentrating of 1.4Amps.
- Density design, small size, and low cost.

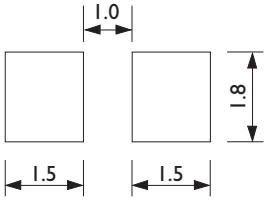
## APPLICATIONS

- 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)

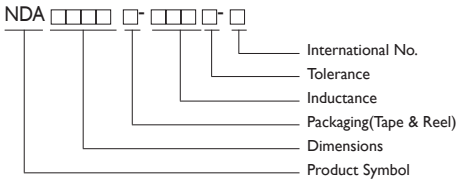
## FEATURES

- 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

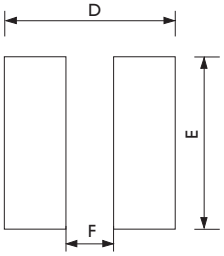
- DC-DC converter
- LCD monitor
- Digital video and still cameras.
- Digital camera.
- Harddisk drivers and others.

## PRODUCT IDENTIFICATION




## LAND PATTERNS PCB

Dimensions : mm



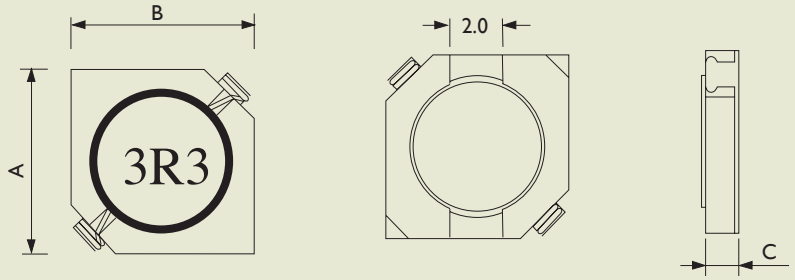

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N | Inductance L(μH)±20[1] | DCR (Ω) MAX. | IDC (A) MAX.[2] |
|---|---|---|---|
| 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±0.2 | 7.0±0.2 | 1.5MAX | 7.3 | 7.3 | 2.0 |

# NDA Series

## Mini Power Inductors


(NDA1015)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| P/N | Inductance L(μH)±20[1] | DCR (Ω) MAX. | IDC (A) MAX.[2] |
|---|---|---|---|
| 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)

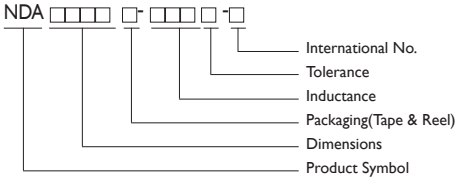
## FEATURES

- 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

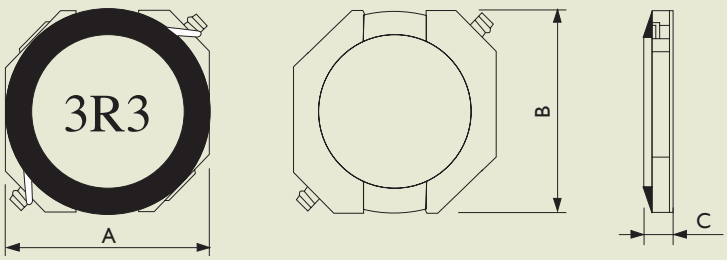
- DC-DC converter
- LCD monitor
- Digital video and still cameras.
- Digital camera.
- Harddisk drivers and others.

## PRODUCT IDENTIFICATION




## SHAPE AND DIMENSIONS

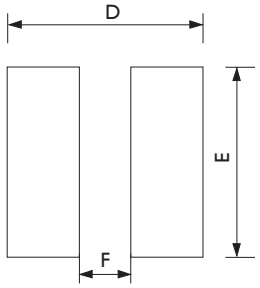
Dimensions : mm




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

## LAND PATTERNS PCB

Dimensions : mm



Mini Power Inductors

# NAN Series

(NAN0610)

## FEATURES

Very low profile.

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

High inductance & high cuttent ultra ow profile power inductors.

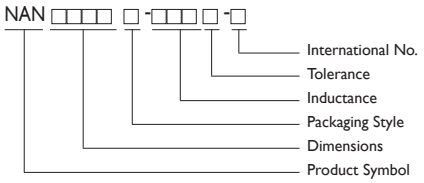
## APPLICATIONS

DC to DC converter

LCD

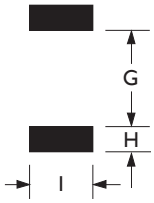
Mobile telephone

## PRODUCT IDENTIFICATION




## LAND PATTERNS PCB

Dimensions : mm



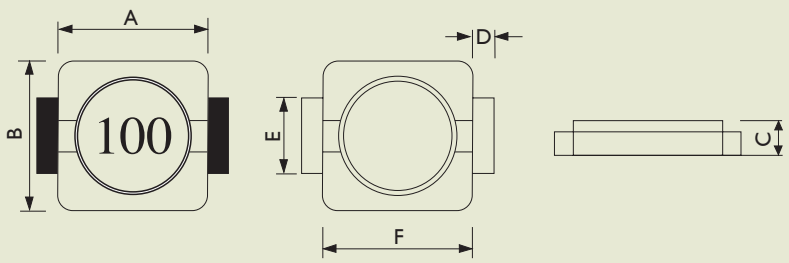

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance L(μH)[1] | DCR (Ω) MAX. | IDC (mA) MAX.[2] |
|---|---|---|---|
| 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. Electrlcal speclfication at 25°C
5. Inductance : M : ±20%

## SHAPE AND DIMENSIONS

Dimensions : mm




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

# NAN Series

## Mini Power Inductors

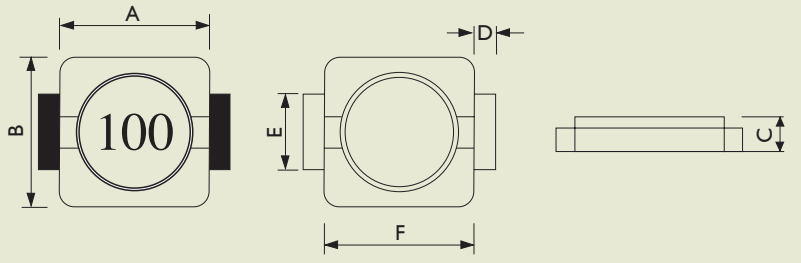
## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance L(μH)[1] | DCR (Ω) MAX. | IDC (mA) MAX.[2] |
|---|---|---|---|
| NAN0612T-1R2M-N | 1.20 | 0.060 | 1800 |
| NAN0612T-2R2M-N | 2.20 | 0.125 | 1200 |
| NAN0612T-3R3M-N | 3.30 | 0.155 | 960.0 |
| NAN0612T-4R7M-N | 4.70 | 0.206 | 900.0 |
| NAN0612T-6R8M-N | 6.80 | 0.240 | 800.0 |
| NAN0612T-100M-N | 10.0 | 0.370 | 700.0 |
| NAN0612T-150M-N | 15.0 | 0.460 | 600.0 |
| NAN0612T-180M-N | 18.0 | 0.580 | 560.0 |
| NAN0612T-220M-N | 22.0 | 0.668 | 500.0 |
| NAN0612T-270M-N | 27.0 | 0.950 | 450.0 |
| NAN0612T-330M-N | 33.0 | 1.100 | 420.0 |
| NAN0612T-390M-N | 39.0 | 1.280 | 380.0 |
| NAN0612T-470M-N | 47.0 | 1.380 | 340.0 |
| NAN0612T-560M-N | 56.0 | 1.700 | 300.0 |
| NAN0612T-680M-N | 68.0 | 2.100 | 280.0 |
| NAN0612T-820M-N | 82.0 | 2.700 | 260.0 |
| NAN0612T-101M-N | 100.0 | 3.100 | 235.0 |

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. Electrlcal speclfication at 25°C
5. Inductance : M : ±20%

## SHAPE AND DIMENSIONS

Dimensions : mm




| TYPE | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| NAN0612 | 6.6 | 5.3±0.3 | 1.2 | 0.9 | 3.0 | 4.5 | 4.0 | 1.0 | 2.3 |

(NAN0612)

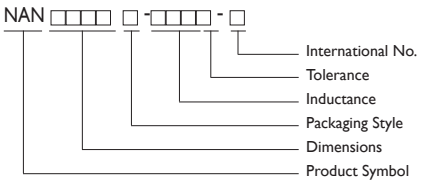
## FEATURES

- Very low profile.
- Constructed enclosed in a arugged to provide optimum pick and place operations.
- High inductance & high cuttent ultra ow profile power inductors.

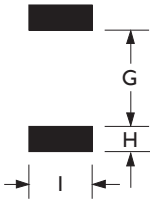
## APPLICATIONS

- DC to DC converter
- LCD
- Mobile telephone

## PRODUCT IDENTIFICATION




## LAND PATTERNS PCB



Mini Power Inductors

# NAN Series

(NAN0620)

## FEATURES

Very low profile.

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

High inductance & high cuttent ultra ow profile power inductors.

## APPLICATIONS

DC to DC converter

LCD

Mobile telephone

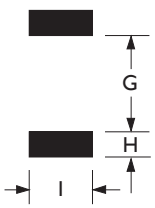
## PRODUCT IDENTIFICATION

NAN □□□□ □ -□□□ □ -□

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

## LAND PATTERNS PCB

Dimensions : mm



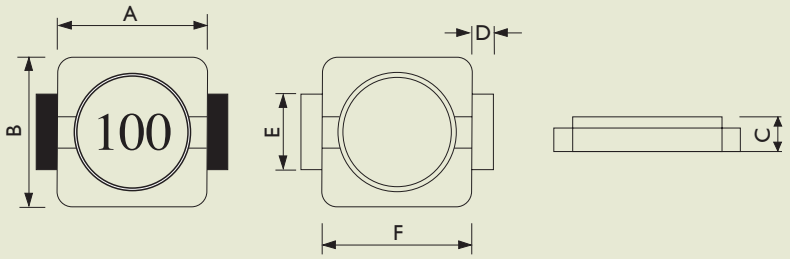

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance L(μH)[1] | DCR (Ω) MAX. | IDC (mA) MAX.[2] |
|---|---|---|---|
| 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. Electrlcal speclfication 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(μH)±20[1] | DCR (Ω) MAX. | IDC (A) MAX.[2] |
|---|---|---|---|
| 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 : ±20%

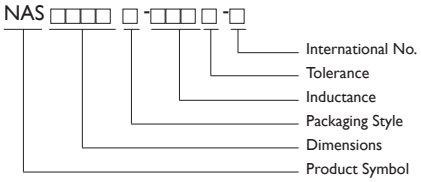
## FEATURES

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

## APPLICATIONS

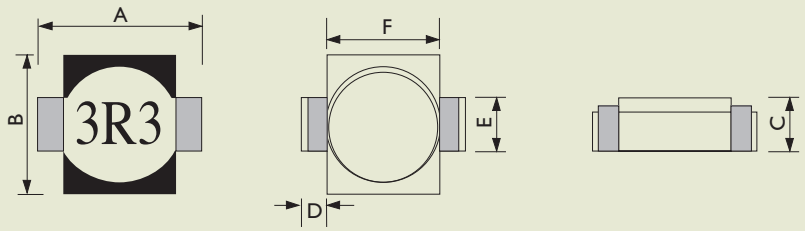
- Mobile telephone.
- Step-up or step-down converters.
- Flash memory.

## PRODUCT IDENTIFICATION



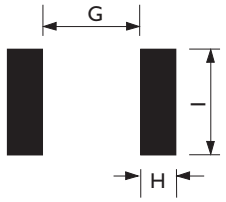

## SHAPE AND DIMENSIONS

Dimensions : mm




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

## LAND PATTERNS PCB



SMD Power Inductors

# NAS Series


(NAS0620)

## FEATURES

- Magentically 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.

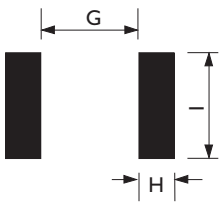
## PRODUCT IDENTIFICATION

NAS □□□□ □ -□□□ □ -□

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

## LAND PATTERNS PCB

Dimensions : mm



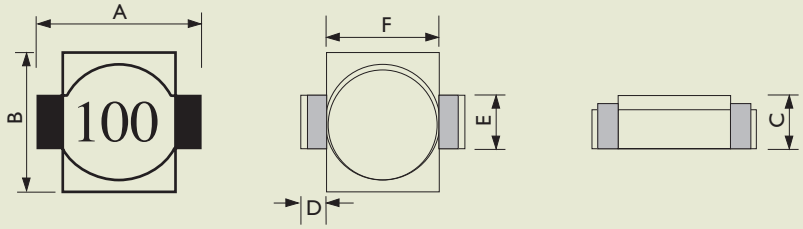

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | L(μH)±20%[1] | Q MIN | DCR (Ω) max | SRF typ(MHz) | IDC (A) MAX.[2] |
|---|---|---|---|---|---|
| NAS0620T-1R0M-N | 1.00 | 30 @200KHZ | 0.040 | 250 | 3.00 |
| NAS0620T-1R5M-N | 1.50 | 30 @200KHZ | 0.045 | 125 | 2.80 |
| NAS0620T-2R2M-N | 2.20 | 40 @200KHZ | 0.05 | 120 | 1.80 |
| NAS0620T-3R2M-N | 3.30 | 40 @200KHZ | 0.055 | 120 | 1.60 |
| NAS0620T-4R7M-N | 4.70 | 40 @200KHZ | 0.060 | 105 | 1.40 |
| NAS0620T-6R8M-N | 6.80 | 40 @200KHZ | 0.065 | 50 | 1.20 |
| NAS0620T-100M-N | 10.0 | 40 @200KHZ | 0.075 | 38 | 1.00 |
| NAS0620T-150M-N | 15.0 | 40 @200KHZ | 0.090 | 33 | 0.80 |
| NAS0620T-220M-N | 22.0 | 40 @200KHZ | 0.110 | 25 | 0.70 |
| NAS0620T-330M-N | 33.0 | 40 @200KHZ | 0.190 | 20 | 0.60 |
| NAS0620T-470M-N | 47.0 | 40 @200KHZ | 0.230 | 20 | 0.50 |
| NAS0620T-680M-N | 68.0 | 40 @200KHZ | 0.290 | 15 | 0.40 |
| NAS0620T-101M-N | 100 | 40 @200KHZ | 0.480 | 10 | 0.30 |
| NAS0620T-151M-N | 150 | 40 @200KHZ | 0.590 | 9 | 0.26 |
| NAS0620T-221M-N | 220 | 40 @200KHZ | 0.770 | 6 | 0.22 |
| NAS0620T-331M-N | 330 | 40 @200KHZ | 1.400 | 5 | 0.20 |
| NAS0620T-471M-N | 470 | 40 @200KHZ | 1.800 | 4 | 0.19 |
| NAS0620T-681M-N | 680 | 40 @200KHZ | 2.200 | 3 | 0.18 |
| NAS0620T-102M-N | 1000 | 40 @200KHZ | 3.400 | 2 | 0.15 |
| NAS0620T-152M-N | 1500 | 50 @200KHZ | 4.200 | 2 | 0.12 |
| NAS0620T-222M-N | 2200 | 50 @200KHZ | 8.500 | 2 | 0.10 |
| NAS0620T-332M-N | 3300 | 50 @200KHZ | 11.00 | 1 | 0.08 |
| NAS0620T-472M-N | 4700 | 50 @200KHZ | 13.90 | 1 | 0.06 |
| NAS0620T-682M-N | 6800 | 50 @200KHZ | 25.00 | 1 | 0.04 |
| NAS0620T-103M-N | 10000 | 50 @200KHZ | 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. Electrlcal specIfication at 25°C
5. Inductance : M : ±20%

## SHAPE AND DIMENSIONS

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(μH)±20%[1] | DCR (Ω) max | Insulation core-winding(MΩ) | SRF typ(MHz) | IDC (A) MAX.[2] |
|---|---|---|---|---|---|
| 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. Electrlcal speclfication at 25°C
5. Inductance : M : ±20%


(NAS0620BL)

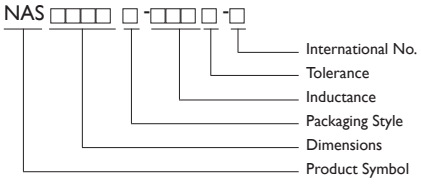
## FEATURES

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

## APPLICATIONS

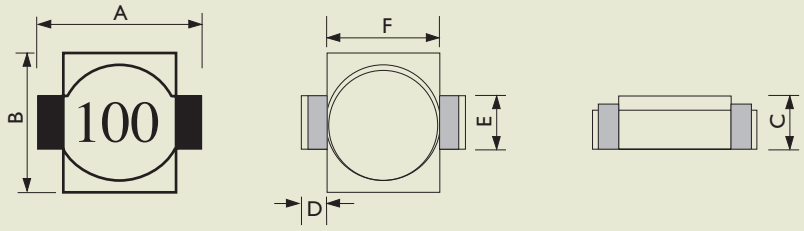
- Mobile telephone.
- Step-up or step-down converters.
- Flash memory.

## PRODUCT IDENTIFICATION




## SHAPE AND DIMENSIONS

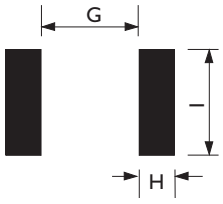
Dimensions : mm




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

## LAND PATTERNS PCB

Dimensions : mm



SMD Power Inductors

# NAS Series


(NAS0630)

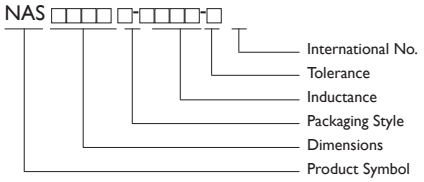
## FEATURES

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

## APPLICATIONS

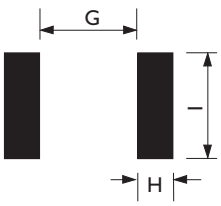
- Mobile telephone.
- Step-up or step-down converters.
- Flash memory.

## PRODUCT IDENTIFICATION




## LAND PATTERNS PCB

Dimensions : mm



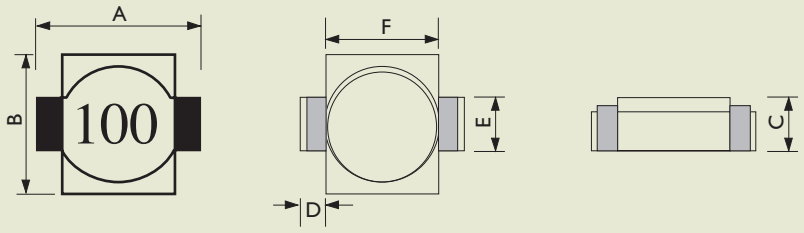

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | L(μH)±20%[1] | Q MIN | DCR (Ω) max | SRF typ(MHz) | IDC (A) MAX.[2] |
|---|---|---|---|---|---|
| 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. Electrical specification at 25°C
5. Inductance : M : ±20%

## SHAPE AND DIMENSIONS

Dimensions : mm




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

# FV0705 Series

SMD Power Inductors

## APPLICATIONS

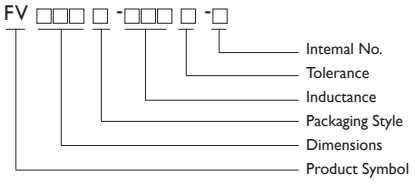
- PDA/Notebook/Desktop/Server applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices
- DC/DC converters in distributed power systems.
- DC/DC converter for Field Programmable Gate Array(FPGA).

## FEATURES

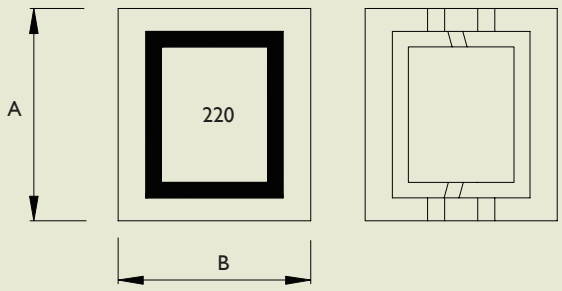
- Lowest height(5.5mm) in this package footprint.
- Shielded construction.
- Frequency range up to 5.0MHz.
- Lowest DCR/uH, in this package size.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.
- 100% lead(Pb) free

• Tolerance :G=±2%, J=±5%, K=±10%

## PRODUCT IDENTIFICATION



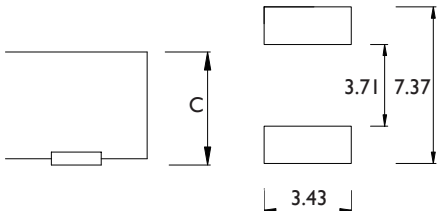

## SHAPES AND DIMENSIONS




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

## LAND PATTERNS

Dimensions : mm



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | L(μH)±20% | DCR MAX(Ohms) | IDC²(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 Vms, 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%

# SCD Series

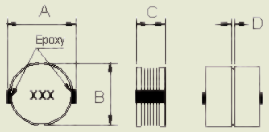
## SMT Power Inductors

## SHAPES AND DIMENSIONS

Dimensions : mm

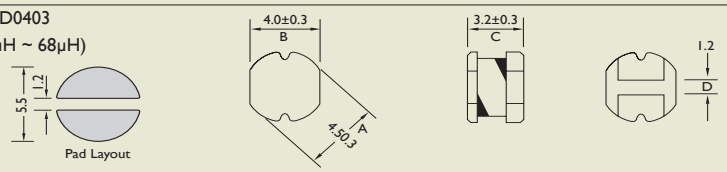
TYPE DIMENSION

SCD0301
(1μH ~ 68μH)



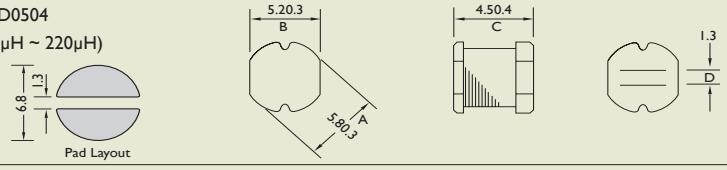

| TYPE | A | B | C | D |
|---|---|---|---|---|
| SCD0301 | 3.5 | 3.0 | 1.0 | 0.6TYP |

SCD0403
(1μH ~ 68μH)

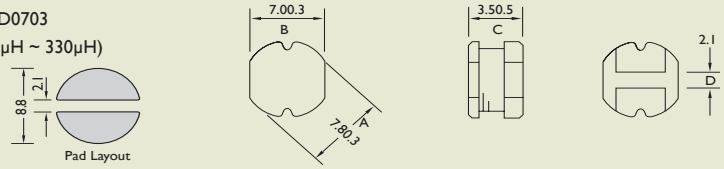



| Dimensions in mm | 2.2H~1500H | 1.0H~1000H | 1.0H~1000H | 1.0H~1000H | 1.0H~1000H |
|---|---|---|---|---|---|
| Dim. | SCD 0301 | SCD 03015 | SCD 03021 | SCD 0501 | SCD 0502 | SCD 0503 |
| A | 3.5+0 | 3.3±0.3 | 3.3±0.3 | 5.8±0.3 | 5.8±0.3 | 5.8±0.3 |
| B | 3.0+0 | 3.0±0.3 | 3.0±0.3 | 5.2±0.3 | 5.2±0.3 | 5.2±0.3 |
| C | 1.0+0 | 1.5±0.3 | 2.1±0.3 | 2.2Max. | 2.5±0.3 | 3±0.3 |
| D | 0.6TYP. | 1.0TYP. | 1.0TYP. | 2.0TYP. | 2.0TYP. | 2.0TYP. |

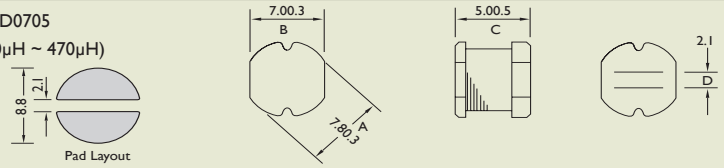
SCD0504
(10μH ~ 220μH)



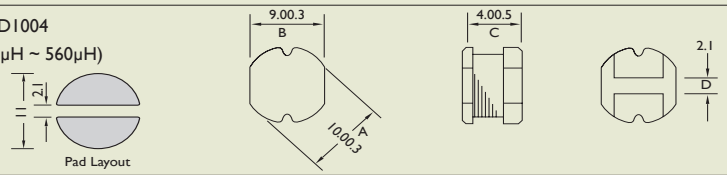

SCD0703
(10μH ~ 330μH)



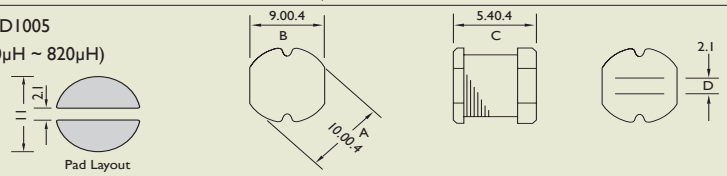

SCD0705
(10μH ~ 470μH)




SCD1004
(10μH ~ 560μH)




SCD1005
(10μH ~ 820μH)




## FEATURES

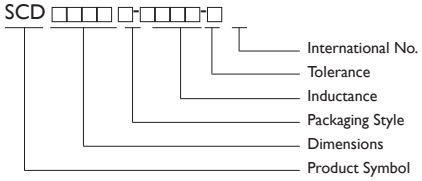
High saturation for surface mounting

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

## APPLICATION

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

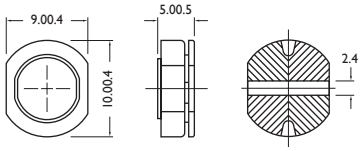
## PRODUCT IDENTIFICATION




- Packing : T : Tape and Reel
- Tolerance : K±10%;M±20%
- Note : YAGEO will start to release SCD Series inductor with lead-free terminals that meet SONY SS-00259's criterial for lead-free product in Q2 of 2004, and YAGEO Internal No will changed to "N" as identification. Ex. SCD0403T-1R0-N

SCDR105B

(10μH ~ 470μH)



## SCD STANDARD SPECIFICATIONS

Electrical Characteristics

### Standard Specifications

| Stamp | Inductance | D.C.R(Ω)Max. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (μH) | SCD 0301 | SCD 03015 | SCD 03021 | SCD 0403 | SCD 0501 | SCD 0502 | SCD 0503 | SCD 0504 | SCD 0703 | SCD 0705 | SCD 1004 | SCD 1005 | SCDR 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 | D.C.R(Ω)Max. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (μH) | SCD 0301 | SCD 03015 | SCD 03021 | SCD 0403 | SCD 0501 | SCD 0502 | SCD 0503 | SCD 0504 | SCD 0703 | SCD 0705 | SCD 1004 | SCD 1005 | SCDR 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±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±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±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±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±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±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±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±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±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±30 | | | | | | | | | | | |
| 152 | 1500 | | 55±30 | | | | | | | | | | | |

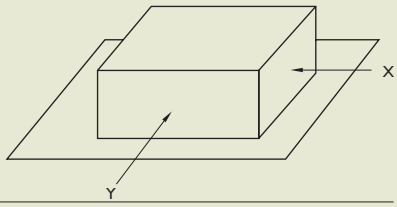
•Test Freq.(L): SCD0301 : 0.1V / 100KHz
SCD03015 : (1MHz / 1V)
SCD03021 / 0403 / 0501 / 0502 / 0503 : 1.0~8.2H(7.96MHz / 1V), 10~82H(2.52MHz / 1V), 100~1000(1KHz / 1V).
SCD0504 / 0705 / 1004 : 1.0~8.2H(7.96MHz / 1V), 10~82H(2.52MHz / 1V), 100~1000H(1KHz / 1V).
SCD1005 : 1.0~8.2H(7.96MHz / 1V), 10~82H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

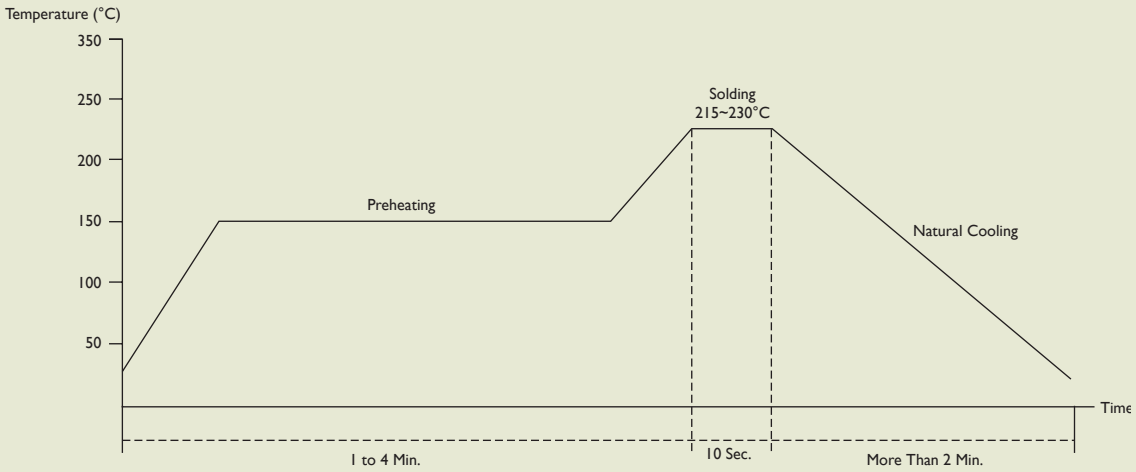
•Test Instrument : L: HP 4192A
DCR : CHEN HWA 502BC
Rated D.C Current : HP4294+42 841A or CH1061 +CH301A

## 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 ,<br>push in tow directions of X, Y with standing as blow conditions.<br>Terminal should not peel off. (Refer to figure at right) |
| 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 $10^{-6}$/°C (-25 ~ +80°C ) |
| Humidity Characteristics | Inductance deviation within ±5.0% , after 96 hours in 90 ~ 95% relative humidity at 40 ± 2°C and<br>1 hour drying under normal condition. |
| Vibration Resistance | Inductance deviation within ±5.0% , after vibration for 1 hour.<br>In each of three orientations at sweep vibration (10 ~ 55 ~ 10Hz) with 1.5 mm p-p amplitude. |

| | | | |
|---|---|---|---|
| 10.0N | 10 Sec. | SCD0403 | SCD0504 |
| 15.0N | 10 Sec. | SCD0703 | SCD0705 |
| 20.0N | 10 Sec. | SCD1004 | SCD1005 |



## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq | RDC(Ω)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-100 □ -N | 10 | 1MHz,1V | 0.30±30% | 0.45 |
| SCD03015T-150 □ -N | 15 | 1MHz,1V | 0.58±30% | 0.3 |
| SCD03015T-220 □ -N | 22 | 1MHz,1V | 0.71±30% | 0.25 |
| SCD03015T-330 □ -N | 33 | 1MHz,1V | 1.10±30% | 0.2 |
| SCD03015T-390 □ -N | 39 | 1MHz,1V | 1.30±30% | 0.17 |
| SCD03015T-470 □ -N | 47 | 1MHz,1V | 1.30±30% | 0.17 |
| SCD03015T-680 □ -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 Δt=40°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 |
|---|---|---|---|---|
| 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-100 □ -N | 10 | 1MHz,1V | 0.30±30% | 0.45 |
| SCD03015T-150 □ -N | 15 | 1MHz,1V | 0.58±30% | 0.3 |
| SCD03015T-220 □ -N | 22 | 1MHz,1V | 0.71±30% | 0.25 |
| SCD03015T-330 □ -N | 33 | 1MHz,1V | 1.10±30% | 0.2 |
| SCD03015T-390 □ -N | 39 | 1MHz,1V | 1.30±30% | 0.17 |
| SCD03015T-470 □ -N | 47 | 1MHz,1V | 1.30±30% | 0.17 |
| SCD03015T-680 □ -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 Δt=40°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 |
|---|---|---|---|---|
| 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 Δt=40°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 |
|---|---|---|---|---|
| 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 Δt=40°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 |
|---|---|---|---|---|
| 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

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"-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 |
|---|---|---|---|---|
| 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 Δt=40°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 |
|---|---|---|---|---|
| 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 Δt=40°C Whichever is lower.

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## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq | RDC(Ω)Max | IDC(A)Max |
|---|---|---|---|---|
| SCD0504T-3R3 □ -N | 3.3 | 7.96MHz,1V | 0.0314 | 2.59 |
| SCD0504T-100 □ -N | 10 | 2.52MHz,1V | 0.1 | 1.44 |
| SCD0504T-120 □ -N | 12 | 2.52MHz,1V | 0.12 | 1.4 |
| SCD0504T-150 □ -N | 15 | 2.52MHz,1V | 0.14 | 1.3 |
| SCD0504T-180 □ -N | 18 | 2.52MHz,1V | 0.15 | 1.23 |
| SCD0504T-220 □ -N | 22 | 2.52MHz,1V | 0.18 | 1.11 |
| SCD0504T-270 □ -N | 27 | 2.52MHz,1V | 0.2 | 0.97 |
| SCD0504T-330 □ -N | 33 | 2.52MHz,1V | 0.23 | 0.88 |
| SCD0504T-390 □ -N | 39 | 2.52MHz,1V | 0.32 | 0.8 |
| SCD0504T-470 □ -N | 47 | 2.52MHz,1V | 0.37 | 0.72 |
| SCD0504T-560 □ -N | 56 | 2.52MHz,1V | 0.42 | 0.68 |
| SCD0504T-680 □ -N | 68 | 2.52MHz,1V | 0.46 | 0.61 |
| SCD0504T-820 □ -N | 82 | 2.52MHz,1V | 0.6 | 0.58 |
| SCD0504T-101 □ -N | 100 | 1KHz,1V | 0.7 | 0.52 |
| SCD0504T-121 □ -N | 120 | 1KHz,1V | 0.93 | 0.48 |
| SCD0504T-151 □ -N | 150 | 1KHz,1V | 1.1 | 0.4 |
| SCD0504T-181 □ -N | 180 | 1KHz,1V | 1.38 | 0.38 |
| SCD0504T-221 □ -N | 220 | 1KHz,1V | 1.57 | 0.35 |
| SCD0504T-102 □ -N | 1000 | 1KHz,1V | 10 | 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 Δt=40°C Whichever is lower.

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

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.

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq | RDC(Ω)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 Δt=40°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 |
|---|---|---|---|---|
| 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 Δt=40°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%

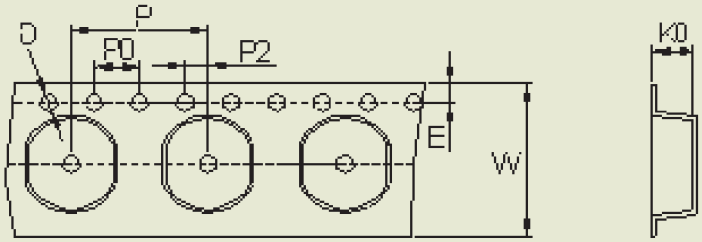
1.Operating temperature range -40°C~85°C

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.

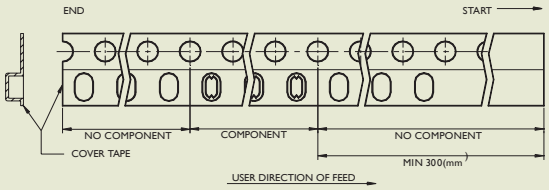
"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## SMD UNSHIELDED POWER INDUCTORS - SCD SERIES

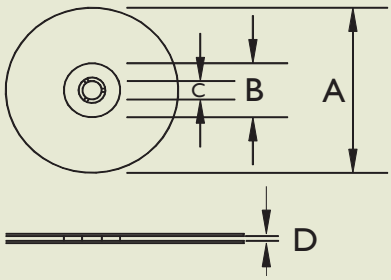
Packaging Specifications




Tape Material




Reel Dimemsions




Dimensions : mm

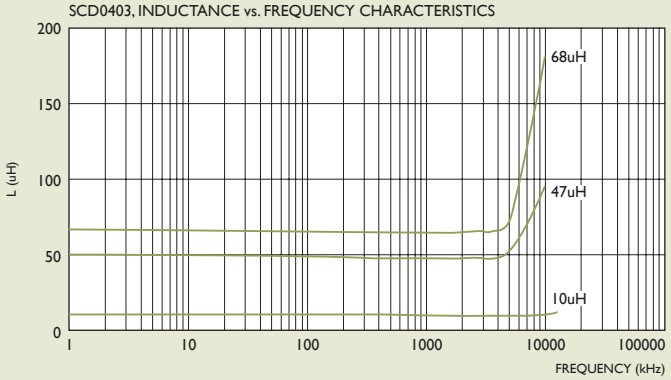
| TYPE | TAPE DIMENSIONS | | | | | | | RECOMMENDED PATTERN | | REEL DIMENSIONS | | | | QUANTITY PCS/REEL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K0 | D | E | W | P | P0 | P2 | A | B | A | B | C | D | |
| SCD0301 | 1.2 | 1.50 | 1.75 | 12 | 8 | 4 | 2 | | | 330 | 100 | 13 | 13.4 | 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

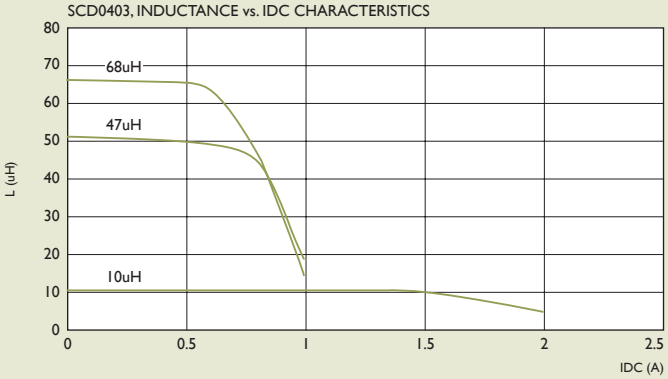
Curves of SCD Series

Test Instruments : HP4291A Impedance / Material Analyzer

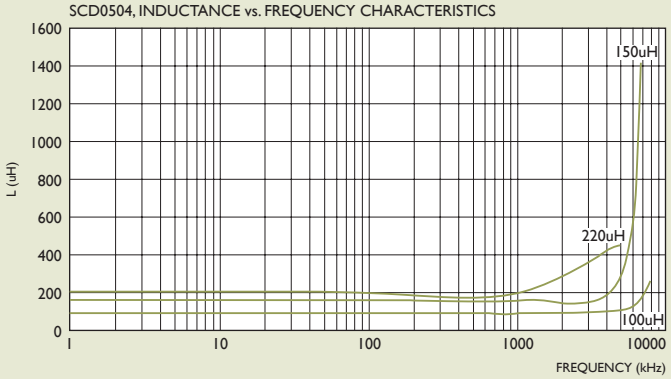
SCD0403, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



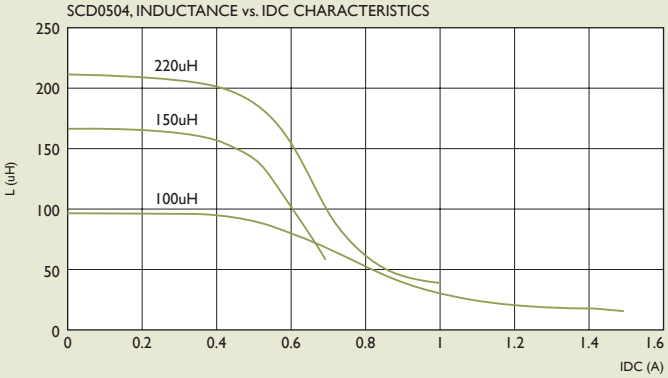

SCD0403, INDUCTANCE vs. IDC CHARACTERISTICS



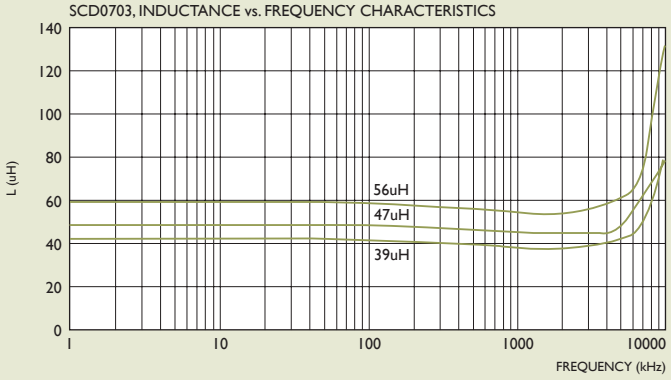

SCD0504, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



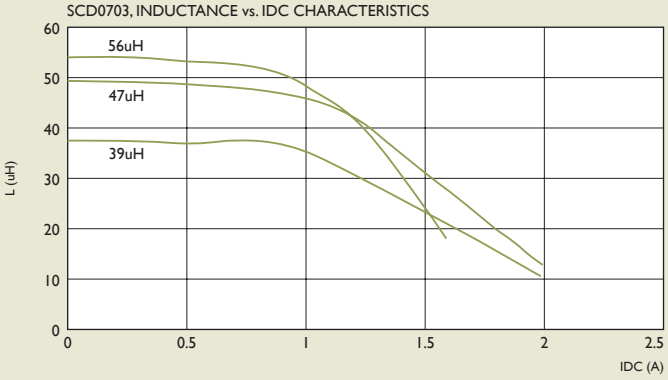

SCD0504, INDUCTANCE vs. IDC CHARACTERISTICS



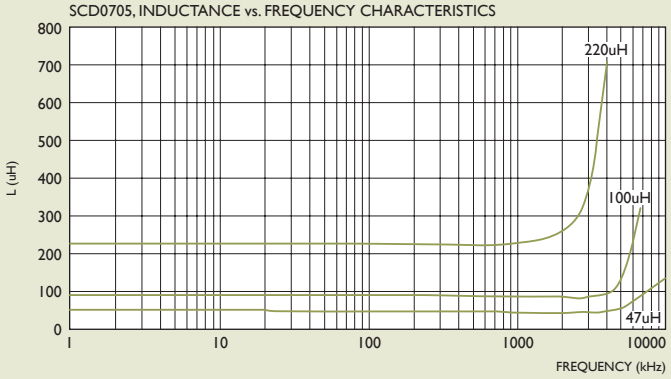

SCD0703, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



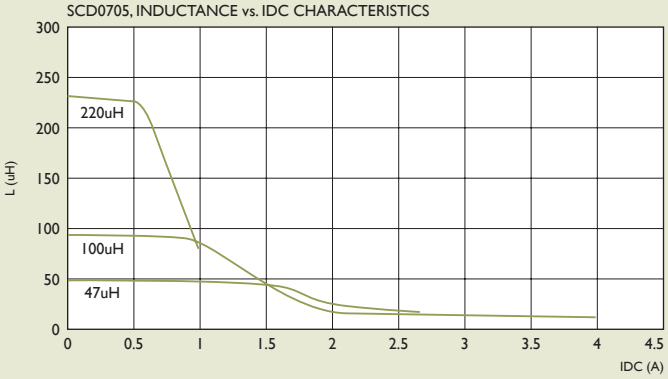

SCD0703, INDUCTANCE vs. IDC CHARACTERISTICS




SCD0705, INDUCTANCE vs. FREQUENCY CHARACTERISTICS




SCD0705, INDUCTANCE vs. IDC CHARACTERISTICS

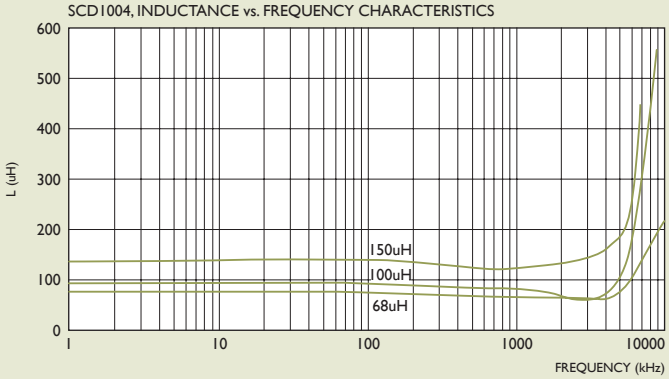


## TYPICAL ELECTRICAL CHARACTERISTICS

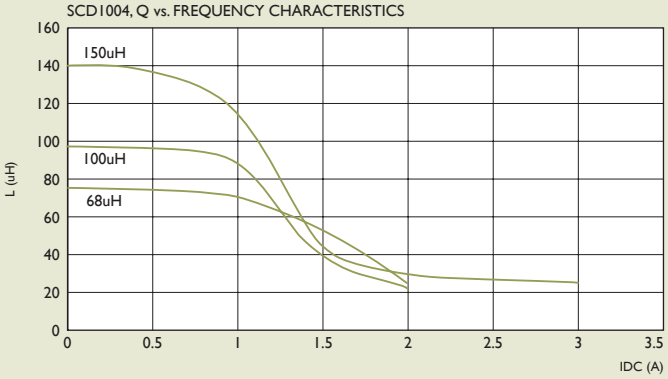
Curves of SCD Series

Test Instruments : HP4291A Impedance / Material Analyzer

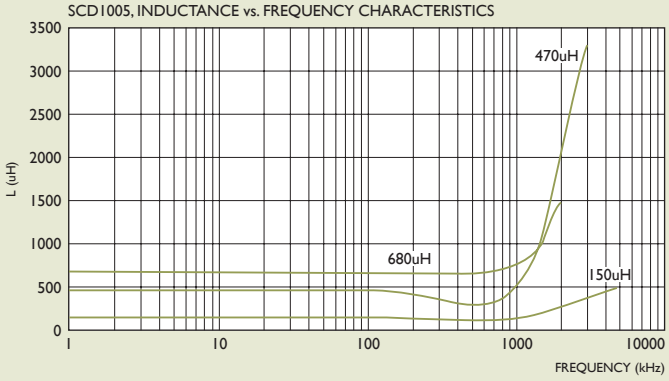
SCD1004, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



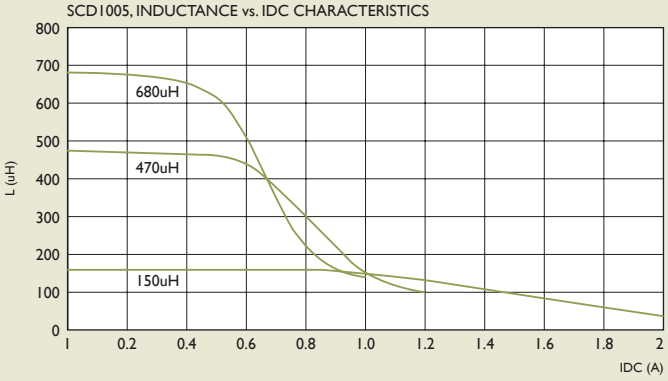

SCD1004, Q vs. FREQUENCY CHARACTERISTICS



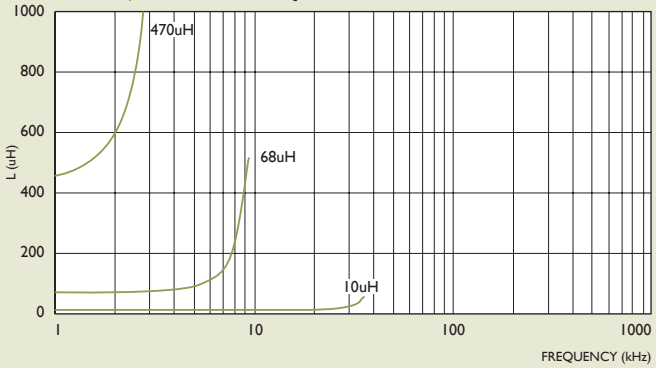

SCD1005, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



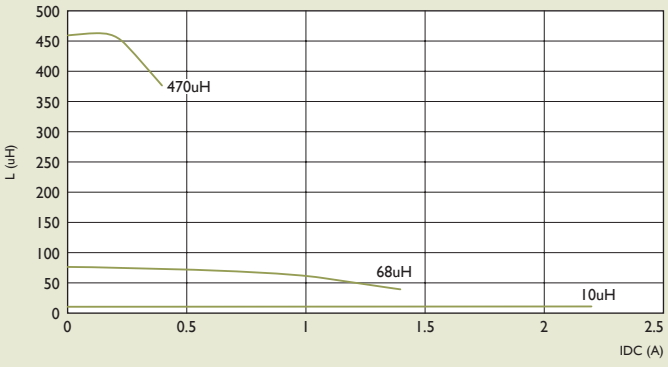

SCD1005, INDUCTANCE vs. IDC CHARACTERISTICS




SCDR105B, INDUCTANCE vs. FREQUENCY CHARACTERISTICS




SCDR105B, INDUCTANCE vs. IDC CHARACTERISTICS



## SCD SERIES RELIABILITY TEST

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

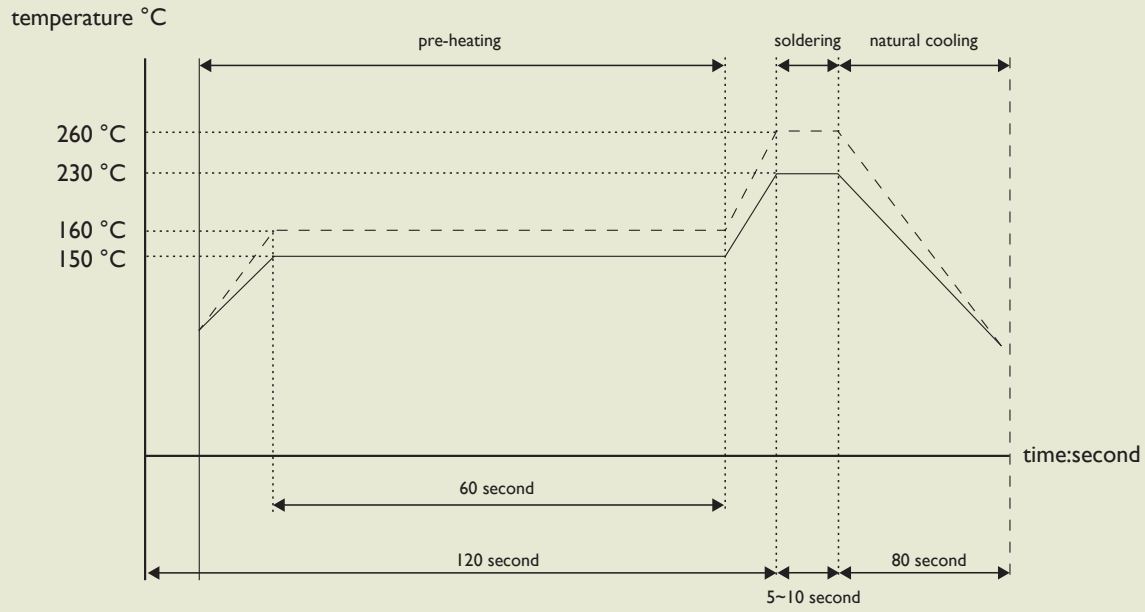
| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to -125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | |
|---|---|
| | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 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. |
| 1-2-5 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

SCDS □□□ □ - □□□ □ -□

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

- 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 criterial and YAGEO Internal No will changed to "N" as identification. EX : SCDS 127T-100M-N

## FEATURES

Available in magnetically shielded.

Low DC resistance.

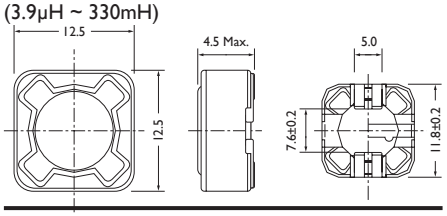
Suitable for large currents.

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.

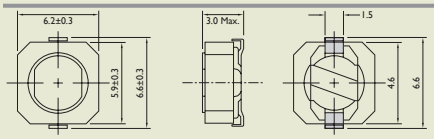
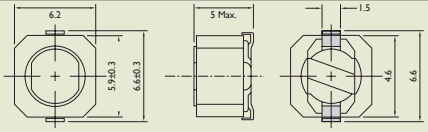
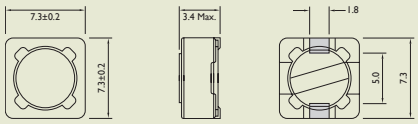
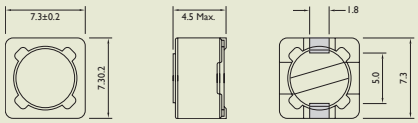
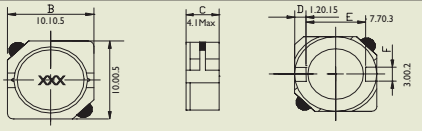
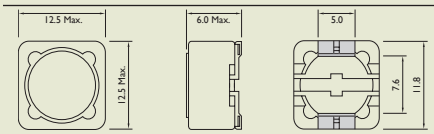
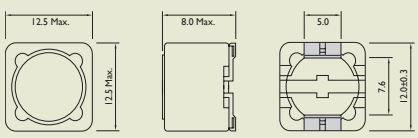
Notebook PCs.

Portable communication equipment.

DC / DC converters, etc.

## CONFIGURATION AND DIMENSIONS

Dimensions : mm

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

## STANDARD SPECIFICATIONS

| PART | INDUCTANCE (H) | D.C.R.(M)MAX. SCDS 62T | SCDS 64T | SCDS 73 | SCDS 74 | SCDS 104R | SCDS 124 | SCDS 125 | SCDS 127 | RATEDCURRENT(A)MAX. SCDS 62 | SCDS 64 | SCDS 73 | SCDS 74 | SCDS 104R | SCDS 124 | SCDS 125 | SCDS 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 indicastes 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,1V | 0.068+0 | 1.94 |
| SCDS62T-3R6 □-N | 3.6 | 7.96MHz,1V | 0.08+0 | 1.63 |
| SCDS62T-4R7 □-N | 4.7 | 7.96MHz,1V | 0.08+0 | 1.63 |
| SCDS62T-5R6 □-N | 5.6 | 7.96MHz,1V | 0.96+0 | 1.4 |
| SCDS62T-6R8 □-N | 6.8 | 7.96MHz,1V | 0.1+0 | 1.33 |
| SCDS62T-8R2 □-N | 8.2 | 7.96MHz,1V | 0.1+0 | 1.14 |
| SCDS62T-100 □-N | 10 | 2.52MHz,1V | 0.15+0 | 1.1 |
| SCDS62T-120 □-N | 12 | 2.52MHz,1V | 0.2+0 | 1 |
| SCDS62T-150 □-N | 15 | 2.52MHz,1V | 0.23+0 | 0.9 |
| SCDS62T-180 □-N | 18 | 2.52MHz,1V | 0.27+0 | 0.8 |
| SCDS62T-220 □-N | 22 | 2.52MHz,1V | 0.34+0 | 0.74 |
| SCDS62T-270 □-N | 27 | 2.52MHz,1V | 0.38+0 | 0.66 |
| SCDS62T-330 □-N | 33 | 2.52MHz,1V | 0.45+0 | 0.59 |
| SCDS62T-390 □-N | 39 | 2.52MHz,1V | 0.49+0 | 0.54 |
| SCDS62T-470 □-N | 47 | 2.52MHz,1V | 0.69+0 | 0.5 |
| SCDS62T-560 □-N | 56 | 2.52MHz,1V | 0.78+0 | 0.46 |
| SCDS62T-680 □-N | 68 | 2.52MHz,1V | 1.07+0 | 0.42 |
| SCDS62T-820 □-N | 82 | 2.52MHz,1V | 1.21+0 | 0.38 |
| SCDS62T-101 □-N | 100 | 1KHz,1V | 1.39+0 | 0.34 |
| SCDS62T-121 □-N | 120 | 1KHz,1V | 1.9+0 | 0.31 |
| SCDS62T-151 □-N | 150 | 1KHz,1V | 2.18+0 | 0.28 |
| SCDS62T-181 □-N | 180 | 1KHz,1V | 2.77+0 | 0.26 |
| SCDS62T-221 □-N | 220 | 1KHz,1V | 3.12+0 | 0.23 |
| SCDS62T-271 □-N | 270 | 1KHz,1V | 4.38+0 | 0.22 |
| SCDS62T-331 □-N | 330 | 1KHz,1V | 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 FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq | RDC(Ω)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(μH) | Test Freq | RDC(Ω)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 |
|---|---|---|---|---|
| SCDS104R-1R5 □-N | 1.5 | 100KHz,1V | 0.0081+0 | 10 |
| SCDS104R-2R5 □-N | 2.5 | 100KHz,1V | 0.0105+0 | 7.5 |
| SCDS104R-3R8 □-N | 3.8 | 100KHz,1V | 0.013+0 | 6 |
| SCDS104R-5R2 □-N | 5.2 | 100KHz,1V | 0.022+0 | 5.5 |
| SCDS104R-6R8 □-N | 6.8 | 100KHz,1V | 0.027+0 | 5 |
| SCDS104R-7R0 □-N | 7 | 100KHz,1V | 0.027+0 | 4.8 |
| SCDS104R-100 □-N | 10 | 100KHz,1V | 0.035+0 | 4.4 |
| SCDS104R-150 □-N | 15 | 100KHz,1V | 0.050+0 | 3.6 |
| SCDS104R-220 □-N | 22 | 100KHz,1V | 0.073+0 | 2.9 |
| SCDS104R-330 □-N | 33 | 100KHz,1V | 0.093+0 | 2.3 |
| SCDS104R-390 □-N | 39 | 100KHz,1V | 0.128+0 | 2.1 |
| SCDS104R-470 □-N | 47 | 100KHz,1V | 0.128+0 | 2.1 |
| SCDS104R-680 □-N | 68 | 100KHz,1V | 0.213+0 | 1.5 |
| SCDS104R-820 □-N | 82 | 100KHz,1V | 0.290+0 | 1.4 |
| SCDS104R-101 □-N | 100 | 100KHz,1V | 0.304+0 | 1.35 |
| SCDS104R-151 □-N | 150 | 100KHz,1V | 0.506+0 | 1.15 |
| SCDS104R-201 □-N | 200 | 100KHz,1V | 0.756+0 | 0.92 |
| SCDS104R-221 □-N | 220 | 100KHz,1V | 0.756+0 | 0.92 |
| SCDS104R-331 □-N | 330 | 100KHz,1V | 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 FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq | RDC(Ω)Max | IDC(A)Max |
|---|---|---|---|---|
| SCDS124T-3R3 □-N | 3.3 | 100KHz,1V | 0.015+0 | 6.5 |
| SCDS124T-3R9 □-N | 3.9 | 100KHz,1V | 0.015+0 | 6.5 |
| SCDS124T-4R7 □-N | 4.7 | 100KHz,1V | 0.018+0 | 5.7 |
| SCDS124T-6R8 □-N | 6.8 | 100KHz,1V | 0.023+0 | 4.9 |
| SCDS124T-100 □-N | 10 | 100KHz,1V | 0.028+0 | 4.5 |
| SCDS124T-120 □-N | 12 | 100KHz,1V | 0.038+0 | 4 |
| SCDS124T-150 □-N | 15 | 100KHz,1V | 0.050+0 | 3.2 |
| SCDS124T-180 □-N | 18 | 100KHz,1V | 0.057+0 | 3.1 |
| SCDS124T-220 □-N | 22 | 100KHz,1V | 0.066+0 | 2.9 |
| SCDS124T-270 □-N | 27 | 100KHz,1V | 0.080+0 | 2.8 |
| SCDS124T-330 □-N | 33 | 100KHz,1V | 0.097+0 | 2.7 |
| SCDS124T-390 □-N | 39 | 100KHz,1V | 0.132+0 | 2.1 |
| SCDS124T-470 □-N | 47 | 100KHz,1V | 0.150+0 | 1.9 |
| SCDS124T-560 □-N | 56 | 100KHz,1V | 0.190+0 | 1.8 |
| SCDS124T-680 □-N | 68 | 100KHz,1V | 0.220+0 | 1.5 |
| SCDS124T-820 □-N | 82 | 100KHz,1V | 0.260+0 | 1.3 |
| SCDS124T-101 □-N | 100 | 100KHz,1V | 0.308+0 | 1.2 |
| SCDS124T-121 □-N | 120 | 100KHz,1V | 0.380+0 | 1.1 |
| SCDS124T-151 □-N | 150 | 100KHz,1V | 0.530+0 | 0.95 |
| SCDS124T-181 □-N | 180 | 100KHz,1V | 0.620+0 | 0.85 |
| SCDS124T-221 □-N | 220 | 100KHz,1V | 0.700+0 | 0.8 |
| SCDS124T-271 □-N | 270 | 100KHz,1V | 0.876+0 | 0.6 |
| SCDS124T-331 □-N | 330 | 100KHz,1V | 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 |
|---|---|---|---|---|
| SCDS125T-3R3 □-N | 3.3 | 1KHz,1V | 0.0158+0 | 8 |
| SCDS125T-4R7 □-N | 4.7 | 1KHz,1V | 0.018+0 | 7.6 |
| SCDS125T-100 □-N | 10 | 1KHz,1V | 0.025+0 | 4 |
| SCDS125T-120 □-N | 12 | 1KHz,1V | 0.027+0 | 3.5 |
| SCDS125T-150 □-N | 15 | 1KHz,1V | 0.03+0 | 3.3 |
| SCDS125T-180 □-N | 18 | 1KHz,1V | 0.034+0 | 3 |
| SCDS125T-220 □-N | 22 | 1KHz,1V | 0.036+0 | 2.8 |
| SCDS125T-270 □-N | 27 | 1KHz,1V | 0.051+0 | 2.3 |
| SCDS125T-330 □-N | 33 | 1KHz,1V | 0.057+0 | 2.1 |
| SCDS125T-390 □-N | 39 | 1KHz,1V | 0.068+0 | 2 |
| SCDS125T-470 □-N | 47 | 1KHz,1V | 0.075+0 | 1.8 |
| SCDS125T-560 □-N | 56 | 1KHz,1V | 0.11+0 | 1.7 |
| SCDS125T-680 □-N | 68 | 1KHz,1V | 0.12+0 | 1.5 |
| SCDS125T-820 □-N | 82 | 1KHz,1V | 0.14+0 | 1.4 |
| SCDS125T-101 □-N | 100 | 1KHz,1V | 0.16+0 | 1.3 |
| SCDS125T-121 □-N | 120 | 1KHz,1V | 0.17+0 | 1.1 |
| SCDS125T-151 □-N | 150 | 1KHz,1V | 0.23+0 | 1 |
| SCDS125T-181 □-N | 180 | 1KHz,1V | 0.29+0 | 0.9 |
| SCDS125T-221 □-N | 220 | 1KHz,1V | 0.4+0 | 0.8 |
| SCDS125T-271 □-N | 270 | 1KHz,1V | 0.46+0 | 0.75 |
| SCDS125T-331 □-N | 330 | 1KHz,1V | 0.51+0 | 0.68 |
| SCDS125T-391 □-N | 390 | 1KHz,1V | 0.69+0 | 0.65 |
| SCDS125T-471 □-N | 470 | 1KHz,1V | 0.77+0 | 0.58 |
| SCDS125T-561 □-N | 560 | 1KHz,1V | 0.86+0 | 0.54 |
| SCDS125T-681 □-N | 680 | 1KHz,1V | 1.2+0 | 0.48 |
| SCDS125T-821 □-N | 820 | 1KHz,1V | 1.34+0 | 0.43 |
| SCDS125T-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(μH) | Test Freq | RDC(Ω)Max | IDC(A)Max |
|---|---|---|---|---|
| SCDS127T-1R2 □-N | 1.2 | 100KHz,1V | 0.007+0 | 9.8 |
| SCDS127T-2R4 □-N | 2.4 | 100KHz,1V | 0.0115+0 | 8 |
| SCDS127T-3R3 □-N | 3.3 | 100KHz,1V | 0.0135+0 | 7.5 |
| SCDS127T-3R5 □-N | 3.5 | 100KHz,1V | 0.0135+0 | 7.5 |
| SCDS127T-4R7 □-N | 4.7 | 100KHz,1V | 0.0158+0 | 6.8 |
| SCDS127T-6R1 □-N | 6.1 | 100KHz,1V | 0.0176+0 | 6.6 |
| SCDS127T-7R6 □-N | 7.6 | 100KHz,1V | 0.02+0 | 5.9 |
| SCDS127T-100 □-N | 10 | 1KHz,1V | 0.0216+0 | 5.4 |
| SCDS127T-120 □-N | 12 | 1KHz,1V | 0.0243+0 | 4.9 |
| SCDS127T-150 □-N | 15 | 1KHz,1V | 0.027+0 | 4.5 |
| SCDS127T-180 □-N | 18 | 1KHz,1V | 0.0392+0 | 3.9 |
| SCDS127T-220 □-N | 22 | 1KHz,1V | 0.0432+0 | 3.6 |
| SCDS127T-270 □-N | 27 | 1KHz,1V | 0.0459+0 | 3.4 |
| SCDS127T-330 □-N | 33 | 1KHz,1V | 0.0648+0 | 3 |
| SCDS127T-390 □-N | 39 | 1KHz,1V | 0.0729+0 | 2.75 |
| SCDS127T-470 □-N | 47 | 1KHz,1V | 0.1+0 | 2.5 |
| SCDS127T-560 □-N | 56 | 1KHz,1V | 0.11+0 | 2.35 |
| SCDS127T-680 □-N | 68 | 1KHz,1V | 0.14+0 | 2.1 |
| SCDS127T-820 □-N | 82 | 1KHz,1V | 0.16+0 | 1.95 |
| SCDS127T-101 □-N | 100 | 1KHz,1V | 0.22+0 | 1.7 |
| SCDS127T-121 □-N | 120 | 1KHz,1V | 0.25+0 | 1.6 |
| SCDS127T-151 □-N | 150 | 1KHz,1V | 0.28+0 | 1.42 |
| SCDS127T-181 □-N | 180 | 1KHz,1V | 0.35+0 | 1.3 |
| SCDS127T-221 □-N | 220 | 1KHz,1V | 0.39+0 | 1.16 |
| SCDS127T-271 □-N | 270 | 1KHz,1V | 0.56+0 | 1.06 |
| SCDS127T-331 □-N | 330 | 1KHz,1V | 0.64+0 | 0.95 |
| SCDS127T-391 □-N | 390 | 1KHz,1V | 0.7+0 | 0.88 |
| SCDS127T-471 □-N | 470 | 1KHz,1V | 0.98+0 | 0.79 |
| SCDS127T-561 □-N | 560 | 1KHz,1V | 1.07+0 | 0.73 |
| SCDS127T-681 □-N | 680 | 1KHz,1V | 1.46+0 | 0.67 |
| SCDS127T-821 □-N | 820 | 1KHz,1V | 1.64+0 | 0.6 |
| SCDS127T-102 □-N | 1000 | 1KHz,1V | 1.82+0 | 0.55 |

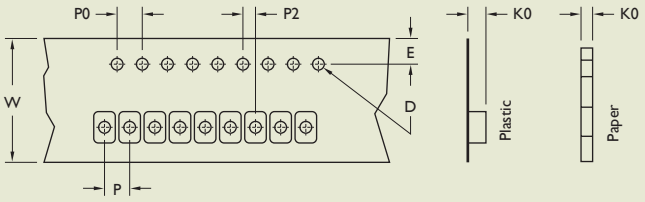
NOTE : □-tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

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)

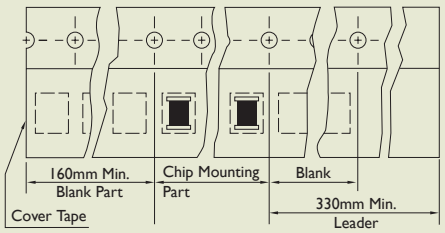
## TAPE DIMENSIONS



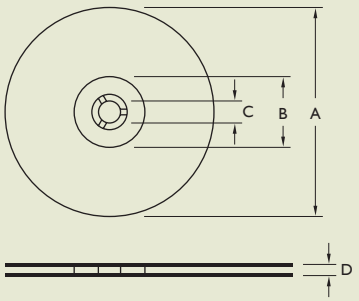

## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

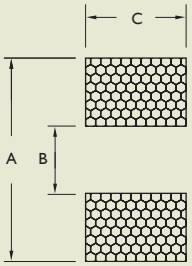



## REEL DIMENSIONS




## RECOMMENDED PATTERN

Land Pattern




Dimensions : mm

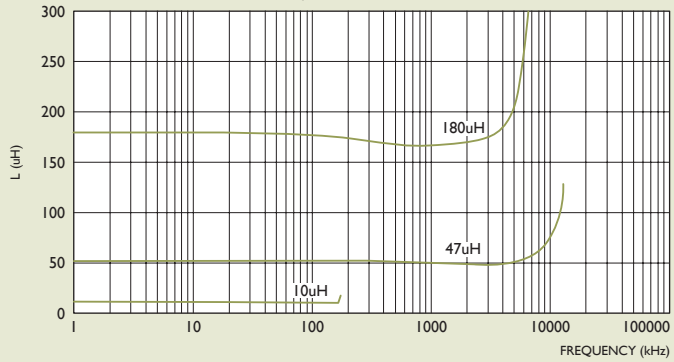
| TYPE | TAPE DIMENSIONS | | | | | | | RECOMMENDED PATTERN | | | REEL DIMENSIONS | | | | QUANTITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K0 | D | E | W | P | P0 | P2 | A | B | C | A | B | C | D | PCS/REEL |
| SCDS62 | 3.4 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 8.1 | 4 | 2.5 | 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

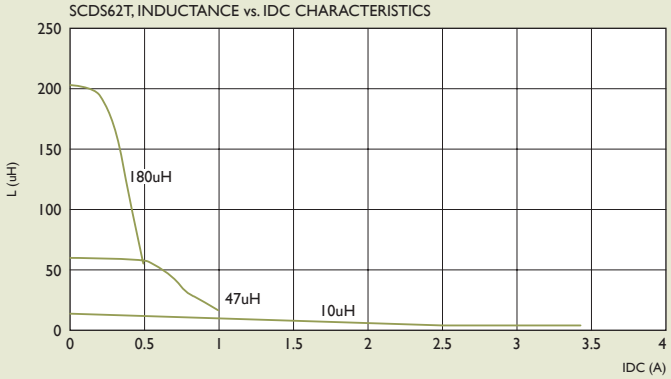
Curves of SCDS Series

Test Instruments : HP4291A Impedance / Material Analyzer

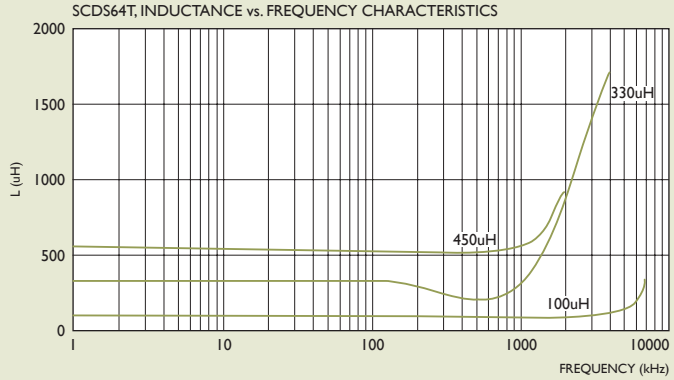
SCDS62T, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



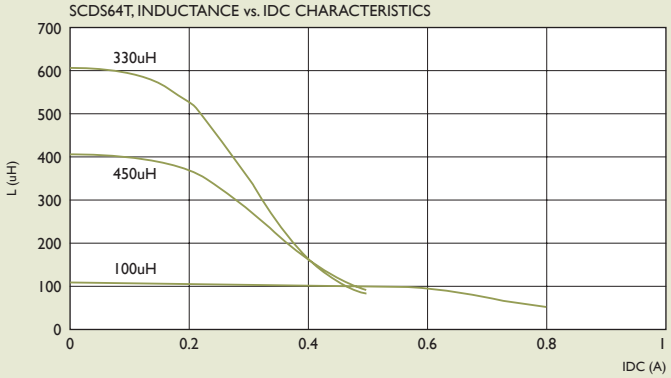

SCDS62T, INDUCTANCE vs. IDC CHARACTERISTICS



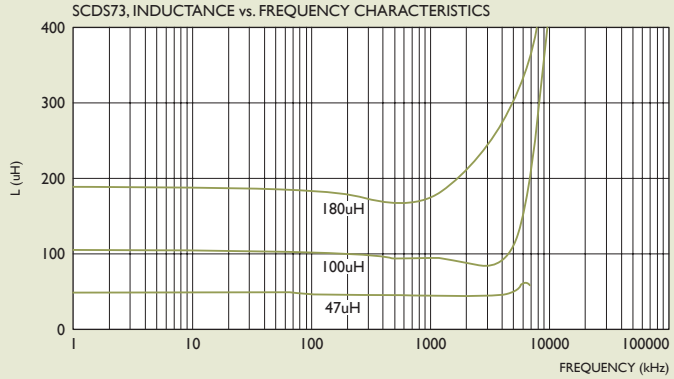

SCDS64T, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



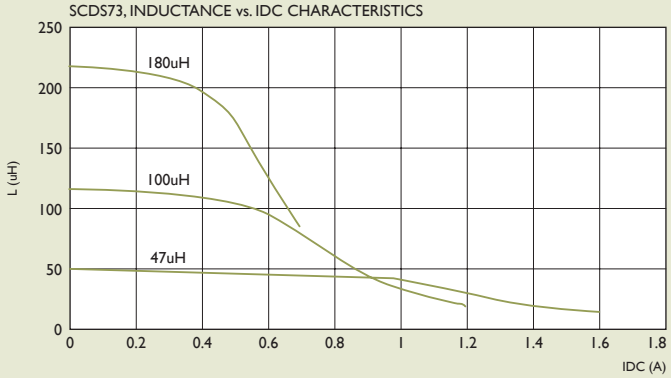

SCDS64T, INDUCTANCE vs. IDC CHARACTERISTICS



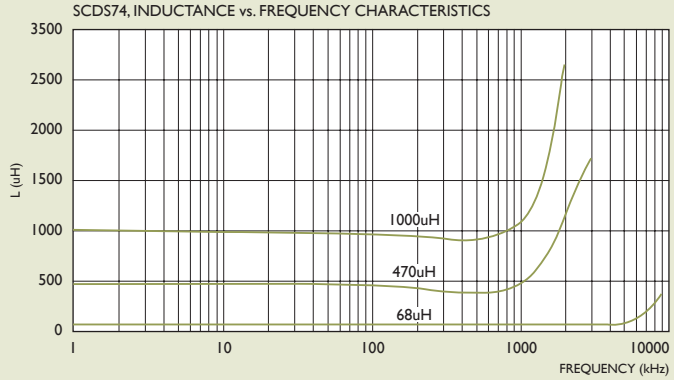

SCDS73, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



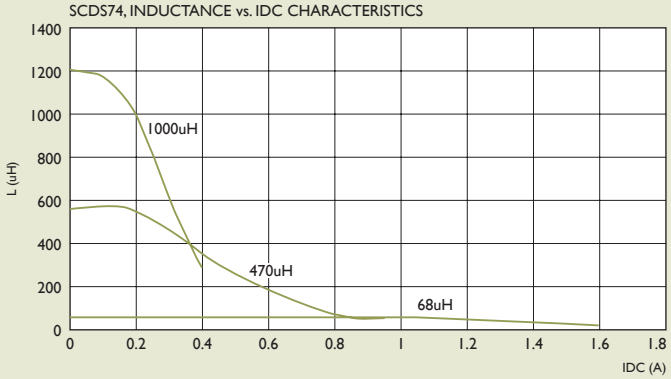

SCDS73, INDUCTANCE vs. IDC CHARACTERISTICS




SCDS74, INDUCTANCE vs. FREQUENCY CHARACTERISTICS




SCDS74, INDUCTANCE vs. IDC CHARACTERISTICS

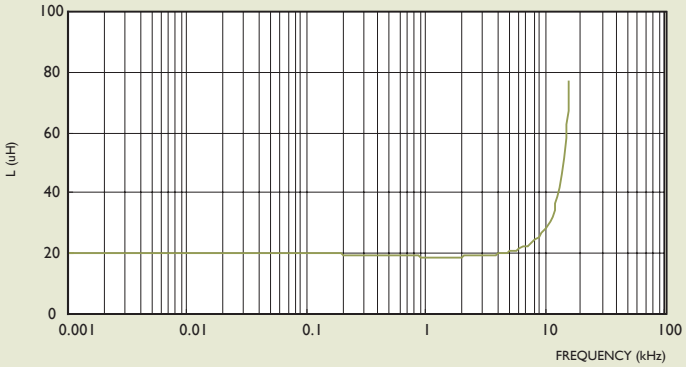


## TYPICAL ELECTRICAL CHARACTERISTICS

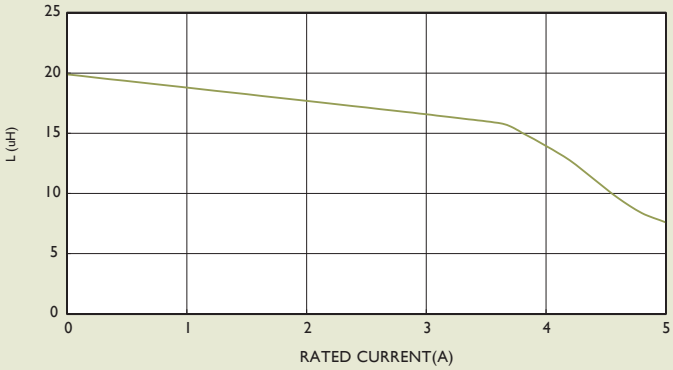
TCurves of SCDS Series

Test Instruments : HP4291A Impedance / Material Analyzer

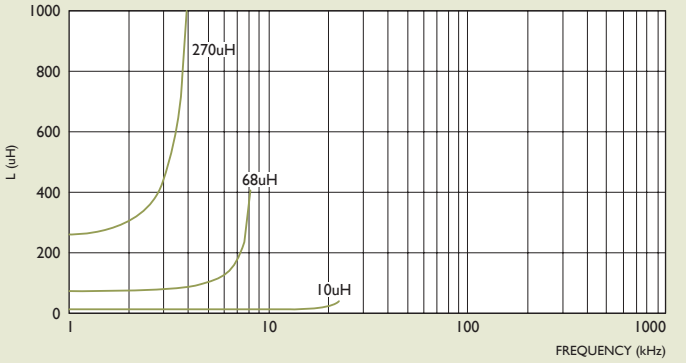
SCDS104R-220MS, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



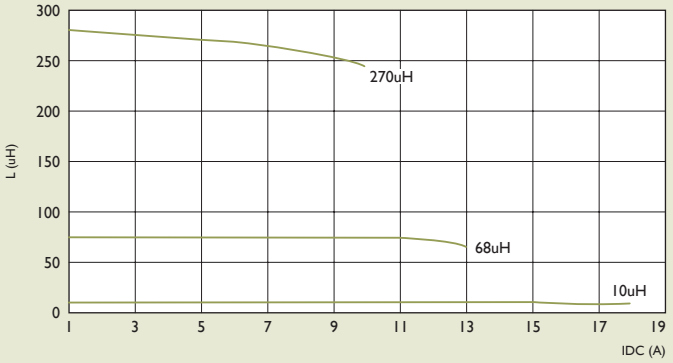

SCDS104R-220M-S



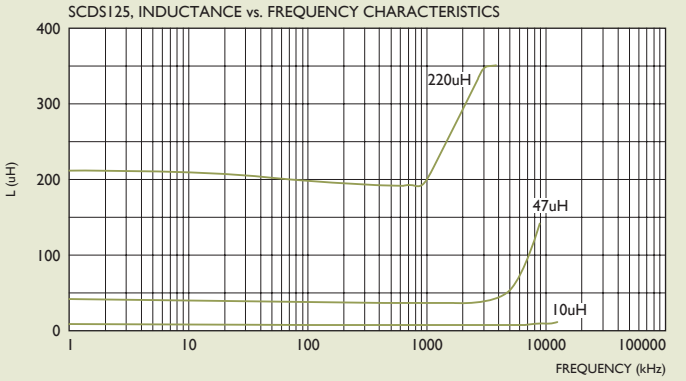

SCDS124, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



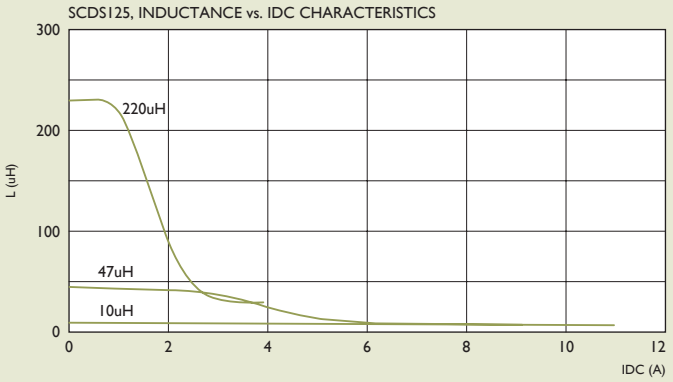

SCDS124, INDUCTANCE vs. IDC CHARACTERISTICS



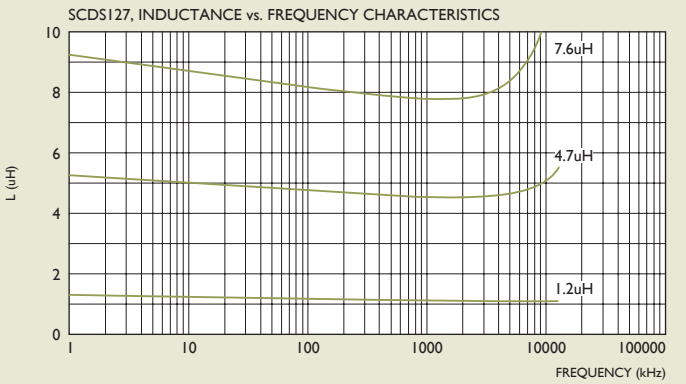

SCDS125, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



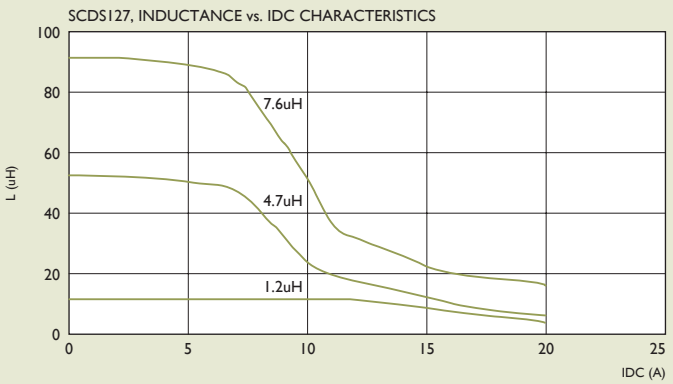

SCDS125, INDUCTANCE vs. IDC CHARACTERISTICS




SCDS127, INDUCTANCE vs. FREQUENCY CHARACTERISTICS




SCDS127, INDUCTANCE vs. IDC CHARACTERISTICS



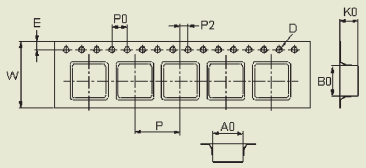
## TYPICAL ELECTRICAL CHARACTERISTICS

Test Instruments : HP4291A Impedance / Material Analyzer

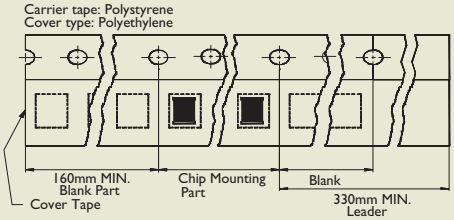
### Packaging Specifications

SCDS 2D11 ~ 6D38

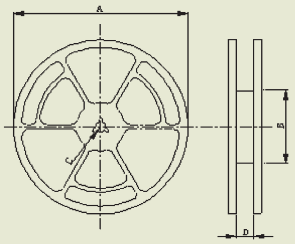
Tape Dimensions




Tape Material




Reel Dimensions

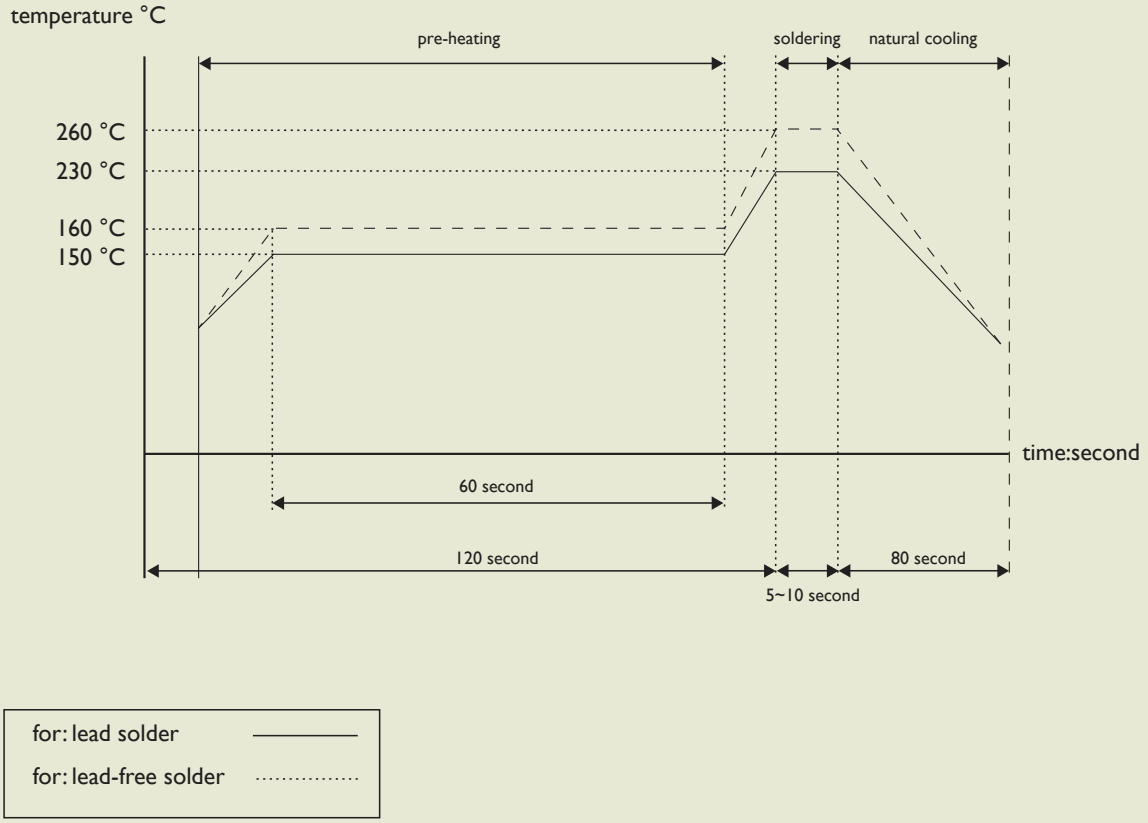



Dimensions : mm

| TYPE | TAPA DIMENSIONS | | | | | | | | | REEL DIMENSIONS | | | | QUANTITY | RECOMMENDED PATTERN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A0 | B0 | K0 | D | E | W | P | P0 | P2 | A | B | C | D | PCS/REEL | 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 ·····

# SCDS Series

## Shielded SMD Power Inductors

## APPLICATIONS

- Power Supply for VTRs
- OA Equipment
- LCD Televisions
- Notebook PCs
- Portable Communication Equipment
- DC / DC Converters, etc.

## PRODUCT IDENTIFICATION

SCDS□□□□ □·□□□□·□

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

- 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 criterial and YAGEO Internal No will changed to "N" as identification.

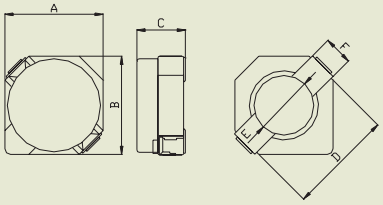
## FEATURES

- Available in Magnetically Dhielded
- 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

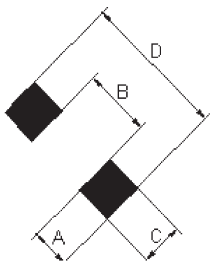
SCDS2D11/2D14
/2D18LD/2D18HP




Dimensions in mm

| TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| SCDS2D11 | $3.2^{+0}$ | $3.2^{+0}$ | $1.2^{+0}$ | 3.3 | 2.1 | 1.0 |
| SCDS2D14 | $3.2^{+0}$ | $3.2^{+0}$ | $1.55^{+0}$ | 3.3 | 2.1 | 1.0 |
| SCDS2D18LD | $3.2^{+0}$ | $3.2^{+0}$ | $2.0^{+0}$ | 3.3 | 2.1 | 1.0 |
| SCDS2D18HP | 3±0.3 | 3±0.3 | $2.0^{+0}$ | 3.3 | 2.1 | 1.0 |

## RECOMMENDED PATTERN



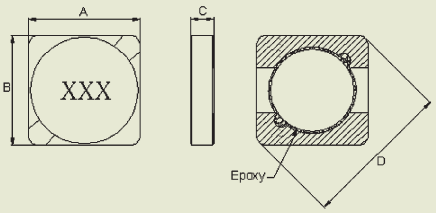

Dimensions in mm

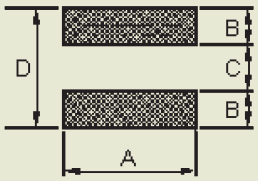
| TYPE | A | B | C | D |
|---|---|---|---|---|
| S CDS 2D11 | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D14 | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D18LD | 1.3 | 1.7 | 1.3 | 4.3 |
| S CDS 2D18HP | 1.3 | 1.7 | 1.3 | 4.3 |

## SHAPES AND DIMENSIONS

## RECOMMENDED PATTERN

### SCDS 3D12



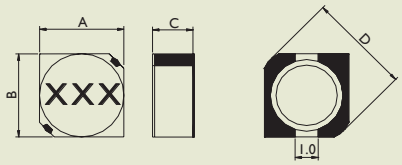

Dimensions in mm

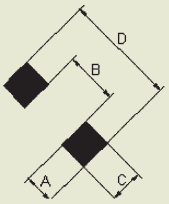
| TYPE | A | | B | | C | D |
|---|---|---|---|---|---|---|
| SCDS3D12 | 3.9 | 0.2 | 3.9 | 0.2 | 1.2 Max | 6.2 Max |

Dimensions in mm

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

### SCDS 3D16



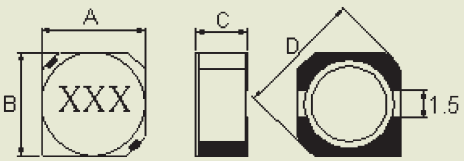

Dimensions in mm

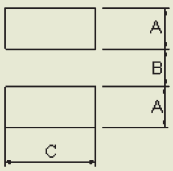
| TAPE | A | B | C | D |
|---|---|---|---|---|
| SCDS3D16 | 4 Max. | 4 Max. | 1.8 Max. | 5.2 Max. |

Dimensions in mm

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

### SCDS 4D18~6D38



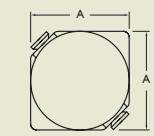



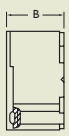

Dimensions in mm

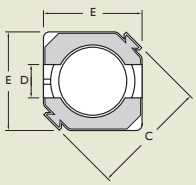
| TAPE | A | | B | | C | D |
|---|---|---|---|---|---|---|
| SCDS4D18 | 4.7 | 0.3 | 4.7 | 0.3 | 2.0 Max | 6.9 Max |
| SCDS4D28 | 4.7 | 0.3 | 4.7 | 0.3 | 3.0 Max | 6.9 Max |

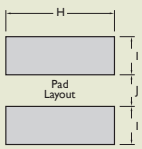
Dimensions in mm

| 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 (H) | D.C.R.(mΩ)Max. | | | | | | | | | | | | RatedCurrent(A)Max. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SCDS 2D11 | SCDS 2D14 | SCDS 2D18LD | SCDS 2D18HP | SCDS 3D12 | SCDS 3D16 | SCDS 4D18 | SCDS 4D28 | SCDS 5D18 | SCDS 5D28 | SCDS 6D28 | SCDS 6D38 | SCDS 2D11 | SCDS 2D14 | SCDS 2D18LD | SCDS 2D18HP | SCDS 3D12 | SCDS 3D16 | SCDS 4D18 | SCDS 4D28 | SCDS 5D18 | SCDS 5D28 | SCDS 6D28 | SCDS 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 | 22 | 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 | | | 0.26 | 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 thedirect current.

• Other type Rated current :The rate current indicastes 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

• 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(μH) | Test Freq | RDC(Ω) | Rated Current(A)Max | Irms(A)Typ | Tolerance |
|---|---|---|---|---|---|---|
| SCDS2D18LD-2R2 □-N | 2.2 | 100KHz,1V | 0.041+0 | 0.85 | 2.3 | M,T |
| SCDS2D18LD-3R3 □-N | 3.3 | 100KHz,1V | 0.054+0 | 0.75 | 2.1 | M,T |
| SCDS2D18LD-4R7 □-N | 4.7 | 100KHz,1V | 0.078+0 | 0.63 | 1.65 | M,T |
| SCDS2D18LD-6R8 □-N | 6.8 | 100KHz,1V | 0.106+0 | 0.52 | 1.32 | M,T |
| SCDS2D18LD-100 □-N | 10 | 100KHz,1V | 0.180+0 | 0.43 | 1 | M,T |
| SCDS2D18LD-150 □-N | 15 | 100KHz,1V | 0.220+0 | 0.35 | 0.8 | M,T |
| SCDS2D18LD-220 □-N | 22 | 100KHz,1V | 0.320+0 | 0.3 | 0.68 | M,T |
| SCDS2D18LD-330 □-N | 33 | 100KHz,1V | 0.460+0 | 0.24 | 0.56 | M,T |
| SCDS2D18LD-470 □-N | 47 | 100KHz,1V | 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: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 |
|---|---|---|---|---|---|---|
| SCDS2D18HP-1R7 □-N | 1.7 | 100KHz,1V | 0.044+0 | 1.85 | 2.2 | M,T |
| SCDS2D18HP-2R2 □-N | 2.2 | 100KHz,1V | 0.060+0 | 1.6 | 1.9 | M,T |
| SCDS2D18HP-3R3 □-N | 3.3 | 100KHz,1V | 0.086+0 | 1.45 | 1.55 | M,T |
| SCDS2D18HP-4R7 □-N | 4.7 | 100KHz,1V | 0.140+0 | 1.2 | 1.2 | M,T |
| SCDS2D18HP-6R3 □-N | 6.3 | 100KHz,1V | 0.160+0 | 1.05 | 1.15 | M,T |
| SCDS2D18HP-100 □-N | 10 | 100KHz,1V | 0.245+0 | 0.85 | 0.9 | M,T |
| SCDS2D18HP-150 □-N | 15 | 100KHz,1V | 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: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)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 Δ 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 |
|---|---|---|---|---|
| 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-100 □-B-N | 10 | 100KHz,0.1V | 0.210+0 | 0.55 |
| SCDS3D16T-150 □-B-N | 15 | 100KHz,0.1V | 0.295+0 | 0.45 |
| SCDS3D16T-220 □-B-N | 22 | 100KHz,0.1V | 0.430+0 | 0.4 |
| SCDS3D16T-270 □-B-N | 27 | 100KHz,0.1V | 0.620+0 | 0.62 |
| SCDS3D16T-330 □-B-N | 33 | 100KHz,0.1V | 0.675+0 | 0.32 |
| SCDS3D16T-470 □-B-N | 47 | 100KHz,0.1V | 1.240+0 | 0.26 |

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(μH) | Test Freq | RDC(Ω)Max | Rated current(A)Max |
|---|---|---|---|---|
| SCDS4D28T-1R0 □-B-N | 1 | 7.96MHz,1V | 0.045+0 | 1.72 |
| SCDS4D28T-2R2 □-B-N | 2.2 | 7.96MHz,1V | 0.075+0 | 1.32 |
| SCDS4D28T-2R7 □-B-N | 2.7 | 7.96MHz,1V | 0.105+0 | 1.28 |
| SCDS4D28T-3R3 □-B-N | 3.3 | 7.96MHz,1V | 0.110+0 | 1.04 |
| SCDS4D28T-3R9 □-B-N | 3.9 | 7.96MHz,1V | 0.155+0 | 0.88 |
| SCDS4D28T-4R7 □-B-N | 4.7 | 7.96MHz,1V | 0.162+0 | 0.84 |
| SCDS4D28T-5R6 □-B-N | 5.6 | 7.96MHz,1V | 0.170+0 | 0.8 |
| SCDS4D28T-6R8 □-B-N | 6.8 | 7.96MHz,1V | 0.200+0 | 0.76 |
| SCDS4D28T-8R2 □-B-N | 8.2 | 7.96MHz,1V | 0.245+0 | 0.68 |
| SCDS4D28T-100 □-B-N | 10 | 7.96MHz,1V | 0.280+0 | 0.61 |
| SCDS4D28T-120 □-B-N | 12 | 7.96MHz,1V | 0.320+0 | 0.56 |
| SCDS4D28T-150 □-B-N | 15 | 7.96MHz,1V | 0.360+0 | 0.5 |
| SCDS4D28T-180 □-B-N | 18 | 7.96MHz,1V | 0.400+0 | 0.48 |
| SCDS4D28T-220 □-B-N | 22 | 7.96MHz,1V | 0.480+0 | 0.41 |
| SCDS4D28T-270 □-B-N | 27 | 7.96MHz,1V | 0.570+0 | 0.35 |
| SCDS4D28T-330 □-B-N | 33 | 7.96MHz,1V | 0.694+0 | 0.32 |
| SCDS4D28T-390 □-B-N | 39 | 7.96MHz,1V | 0.800+0 | 0.3 |
| SCDS4D28T-470 □-B-N | 47 | 7.96MHz,1V | 0.950+0 | 0.28 |
| SCDS4D28T-560 □-B-N | 56 | 7.96MHz,1V | 1.080+0 | 0.26 |
| SCDS4D28T-680 □-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(μH) | Test Freq | RDC(Ω)Max | Rated current(A)Max |
|---|---|---|---|---|
| SCDS4D28T-1R2 □-B-N | 1.2 | 100KHz,1V | 0.0236+0 | 2.56 |
| SCDS4D28T-1R8 □-B-N | 1.8 | 100KHz,1V | 0.0275+0 | 2.2 |
| SCDS4D28T-2R2 □-B-N | 2.2 | 100KHz,1V | 0.0313+0 | 2.04 |
| SCDS4D28T-2R7 □-B-N | 2.7 | 100KHz,1V | 0.0433+0 | 1.6 |
| SCDS4D28T-3R3 □-B-N | 3.3 | 100KHz,1V | 0.0492+0 | 1.57 |
| SCDS4D28T-3R9 □-B-N | 3.9 | 100KHz,1V | 0.0648+0 | 1.44 |
| SCDS4D28T-4R7 □-B-N | 4.7 | 100KHz,1V | 0.0720+0 | 1.32 |
| SCDS4D28T-5R6 □-B-N | 5.6 | 100KHz,1V | 0.1009+0 | 1.17 |
| SCDS4D28T-6R8 □-B-N | 6.8 | 100KHz,1V | 0.1089+0 | 1.12 |
| SCDS4D28T-8R2 □-B-N | 8.2 | 100KHz,1V | 0.1175+0 | 1.04 |
| SCDS4D28T-100 □-B-N | 10 | 100KHz,1V | 0.1283+0 | 1 |
| SCDS4D28T-120 □-B-N | 12 | 100KHz,1V | 0.1316+0 | 0.84 |
| SCDS4D28T-150 □-B-N | 15 | 100KHz,1V | 0.1490+0 | 0.76 |
| SCDS4D28T-180 □-B-N | 18 | 100KHz,1V | 0.1660+0 | 0.72 |
| SCDS4D28T-220 □-B-N | 22 | 100KHz,1V | 0.2350+0 | 0.7 |
| SCDS4D28T-270 □-B-N | 27 | 100KHz,1V | 0.2610+0 | 0.58 |
| SCDS4D28T-330 □-B-N | 33 | 100KHz,1V | 0.3313+0 | 0.56 |
| SCDS4D28T-390 □-B-N | 39 | 100KHz,1V | 0.3837+0 | 0.5 |
| SCDS4D28T-470 □-B-N | 47 | 100KHz,1V | 0.5870+0 | 0.48 |
| SCDS4D28T-560 □-B-N | 56 | 100KHz,1V | 0.6245+0 | 0.41 |
| SCDS4D28T-680 □-B-N | 68 | 100KHz,1V | 0.6990+0 | 0.35 |
| SCDS4D28T-820 □-B-N | 82 | 100KHz,1V | 0.9140+0 | 0.32 |
| SCDS4D28T-101 □-B-N | 100 | 100KHz,1V | 1.0200+0 | 0.29 |
| SCDS4D28T-121 □-B-N | 120 | 100KHz,1V | 1.2700+0 | 0.27 |
| SCDS4D28T-151 □-B-N | 150 | 100KHz,1V | 1.3500+0 | 0.24 |
| SCDS4D28T-181 □-B-N | 180 | 100KHz,1V | 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 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(μH) | Test Freq | RDC(Ω)Max | Rated current(A)Max |
|---|---|---|---|---|
| SCDS5D18T-2R7 □-B-N | 2.7 | 10KHz,1V | 0.052+0 | 2.1 |
| SCDS5D18T-4R1 □-B-N | 4.1 | 10KHz,1V | 0.057+0 | 1.95 |
| SCDS5D18T-5R4 □-B-N | 5.4 | 10KHz,1V | 0.076+0 | 1.6 |
| SCDS5D18T-6R2 □-B-N | 6.2 | 10KHz,1V | 0.096+0 | 1.4 |
| SCDS5D18T-6R8 □-B-N | 6.8 | 10KHz,1V | 0.100+0 | 1.35 |
| SCDS5D18T-8R9 □-B-N | 8.9 | 10KHz,1V | 0.116+0 | 1.25 |
| SCDS5D18T-100 □-B-N | 10 | 10KHz,1V | 0.124+0 | 1.2 |
| SCDS5D18T-120 □-B-N | 12 | 10KHz,1V | 0.153+0 | 1.1 |
| SCDS5D18T-150 □-B-N | 15 | 10KHz,1V | 0.196+0 | 0.97 |
| SCDS5D18T-180 □-B-N | 18 | 10KHz,1V | 0.210+0 | 0.85 |
| SCDS5D18T-220 □-B-N | 22 | 10KHz,1V | 0.290+0 | 0.8 |
| SCDS5D18T-270 □-B-N | 27 | 10KHz,1V | 0.330+0 | 0.75 |
| SCDS5D18T-330 □-B-N | 33 | 10KHz,1V | 0.386+0 | 0.65 |
| SCDS5D18T-390 □-B-N | 39 | 10KHz,1V | 0.520+0 | 0.57 |
| SCDS5D18T-470 □-B-N | 47 | 10KHz,1V | 0.595+0 | 0.54 |
| SCDS5D18T-560 □-B-N | 56 | 10KHz,1V | 0.665+0 | 0.5 |
| SCDS5D18T-680 □-B-N | 68 | 10KHz,1V | 0.840+0 | 0.43 |
| SCDS5D18T-820 □-B-N | 82 | 10KHz,1V | 0.978+0 | 0.41 |
| SCDS5D18T-101 □-B-N | 100 | 10KHz,1V | 1.200+0 | 0.36 |
| SCDS5D18T-121 □-B-N | 120 | 10KHz,1V | 1.600+0 | 0.32 |
| SCDS5D18T-151 □-B-N | 150 | 10KHz,1V | 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 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(μH) | Test Freq | RDC(Ω)Max | Rated current(A)Max |
|---|---|---|---|---|
| SCDS5D28T-2R5 □ -B-N | 2.5 | 10KHz,1V | 0.018+0 | 2.6 |
| SCDS5D28T-3R0 □ -B-N | 3 | 10KHz,1V | 0.024+0 | 2.4 |
| SCDS5D28T-4R2 □ -B-N | 4.2 | 10KHz,1V | 0.031+0 | 2.2 |
| SCDS5D28T-4R7 □ -B-N | 4.7 | 10KHz,1V | 0.038+0 | 1.9 |
| SCDS5D28T-5R3 □ -B-N | 5.3 | 10KHz,1V | 0.038+0 | 1.9 |
| SCDS5D28T-6R2 □ -B-N | 6.2 | 10KHz,1V | 0.045+0 | 1.8 |
| SCDS5D28T-6R8 □ -B-N | 6.8 | 10KHz,1V | 0.050+0 | 1.65 |
| SCDS5D28T-8R2 □ -B-N | 8.2 | 10KHz,1V | 0.053+0 | 1.6 |
| SCDS5D28T-100 □ -B-N | 10 | 10KHz,1V | 0.065+0 | 1.3 |
| SCDS5D28T-120 □ -B-N | 12 | 10KHz,1V | 0.076+0 | 1.2 |
| SCDS5D28T-150 □ -B-N | 15 | 10KHz,1V | 0.103+0 | 1.1 |
| SCDS5D28T-180 □ -B-N | 18 | 10KHz,1V | 0.110+0 | 1 |
| SCDS5D28T-220 □ -B-N | 22 | 10KHz,1V | 0.122+0 | 0.9 |
| SCDS5D28T-270 □ -B-N | 27 | 10KHz,1V | 0.175+0 | 0.85 |
| SCDS5D28T-330 □ -B-N | 33 | 10KHz,1V | 0.189+0 | 0.75 |
| SCDS5D28T-390 □ -B-N | 39 | 10KHz,1V | 0.212+0 | 0.7 |
| SCDS5D28T-470 □ -B-N | 47 | 10KHz,1V | 0.250+0 | 0.62 |
| SCDS5D28T-560 □ -B-N | 56 | 10KHz,1V | 0.305+0 | 0.58 |
| SCDS5D28T-680 □ -B-N | 68 | 10KHz,1V | 0.355+0 | 0.52 |
| SCDS5D28T-820 □ -B-N | 82 | 10KHz,1V | 0.463+0 | 0.46 |
| SCDS5D28T-101 □ -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 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(μH) | Test Freq | RDC(Ω)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 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(μH) | Test Freq | RDC(Ω)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=±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)

## SCDS SERIES RELIABILITY TEST

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

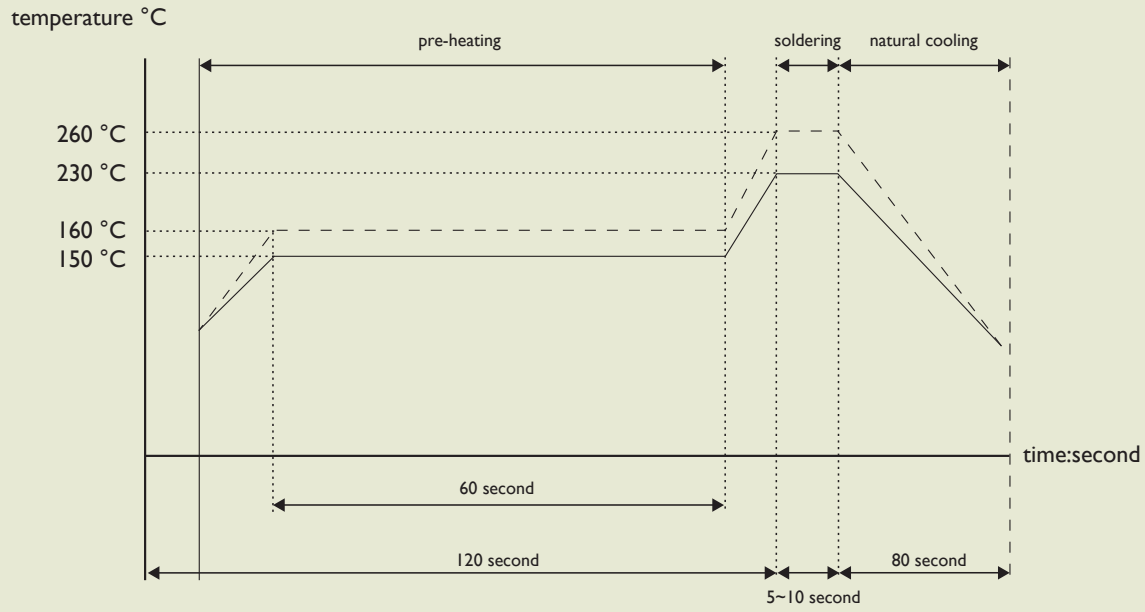
| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to -125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | | |
|---|---|---|
| | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | 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 Shielded Power Inductors

# SCDS Series

High Energy Storage & Lower Power Losses

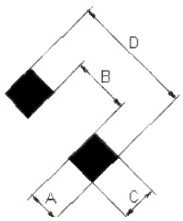
## PRODUCT IDENTIFICATION

SCDS □□□□ □□- □□□□ □- □

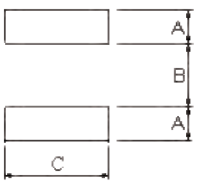
- Intemal No.
- Tolerance
- Inductance
- T or R or LD or HP
- Dimensions
- Product Symbol

- 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 indutors of SCDS series,and Intemal 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 temperayure:-30°C ~100°C (For 2D09/ 4D18C); -40°C ~85°C (For 1014R/ 105R)

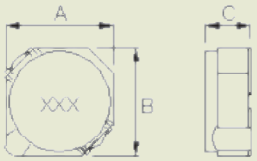
## FEATURES

- 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

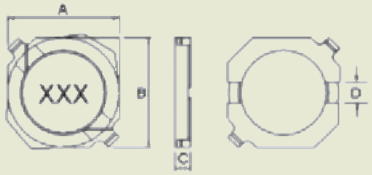
Dimensions : mm

SCDS 2D09




| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $3.2^{+0}$ | $3.2^{+0}$ | $1.0^{+0}$ | 3.3 | 2.1 | 1.0 |

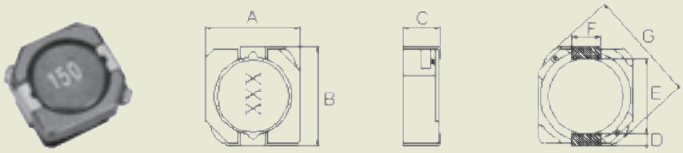
SCDS 1014R




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

## SHAPES AND DIMENSIONS

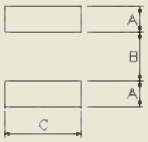
SCDS 105R




| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| $10.3^{+0}$ | $10.5^{+0}$ | $5.1^{+0}$ | 1.2 | 7.7 | 3.0 | $13.5^{+0}$ |

## RECOMMENDED PATTERN

Dimensions : mm




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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

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

- Inductance range 1.2uH to 10uH
- Tolerance : T=±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°C lower, whichever is lower.
- Test instument : L :hp4284A ; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A or CH1061+CH301A

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

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

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq(KHz) | D.C.R(mΩ)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 instument : L :hp192A or HP4263B. RDC : CHEN HWA 502BC Reted current : CH1061+301A

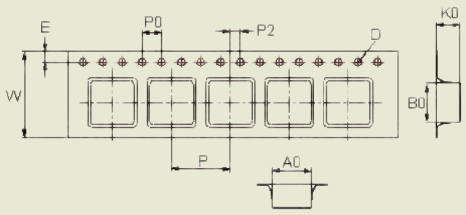
## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq(KHz) | D.C.R(mΩ)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 |

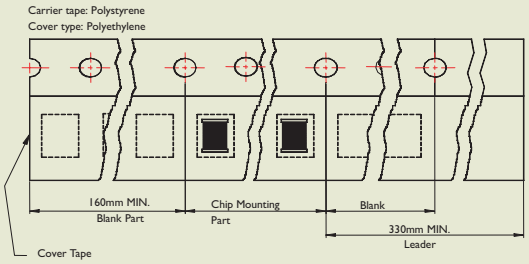
• Inductance range 0.8uH to 10000uH
• Tolerance : T=±30%
• 2.Rate current: Inductance drop = 10% typ.
•Test instument : L :hp192A or HP4263B. ; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A

## PACKAGING SPECIFICATIONS

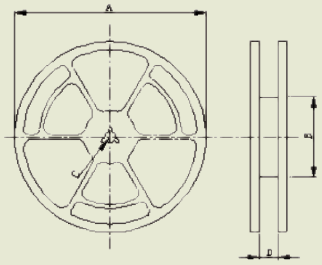
Tape Dimensions




Tape Material



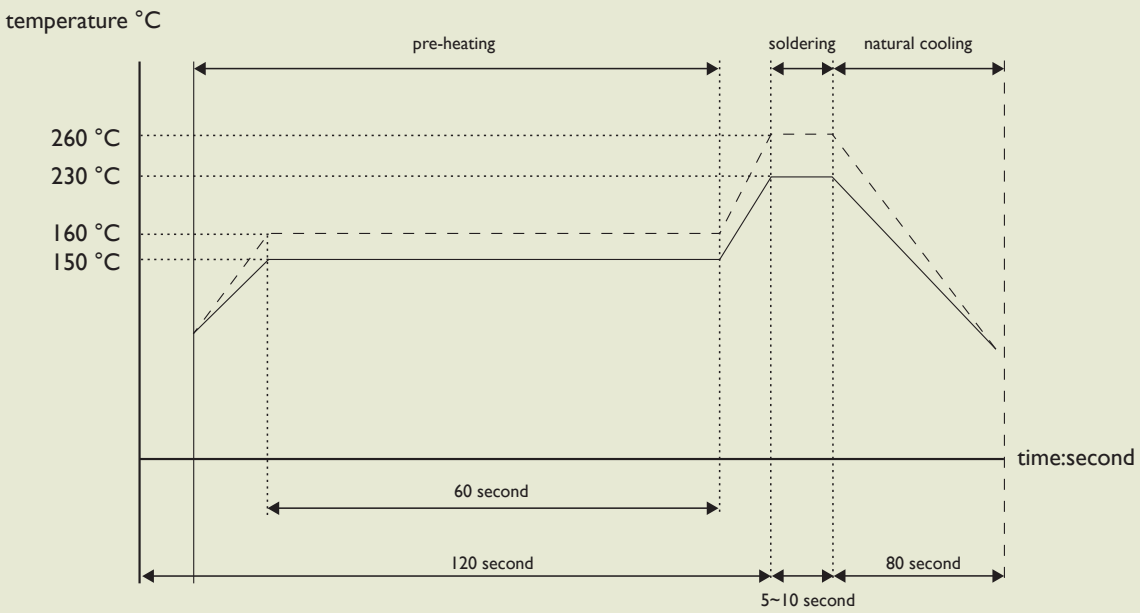

Reel Dimensions

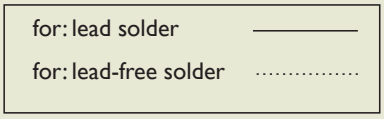



| TYPE | TAPE DIMENSIONS | | | | | | | | | REEL DIMENSIONS | | | | QUANTITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A0 | B0 | K0 | D | E | E | P | P0 | P2 | A | B | C | D | PCS/REEL |
| SCDS 1014R | 10.5 | 10.5 | 1.9 | 1.5 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 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



SMD Unshielded Power Inductors

# SCMD Series

Low DC Resistance & For Large Current Applications


## PRODUCT IDENTIFICATION

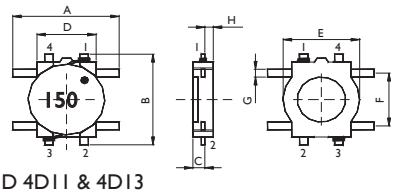
SCMD □□□□ □ -□□□□ -□

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

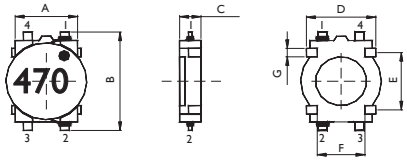
- Packaging: T: Tape and Reel
- Tolerance: M±20%
- Note: YAGEO will start to release SCMD Series inductors with lead-free terminals that meet SONY SS-00259's criteria for lead-free product in Q2 of 2004, and YAGEO Internal No. will be changed to "N" as identification. Ex.: SCMD4D06T-2R2 M-N

## SHAPES AND DIMENSIONS

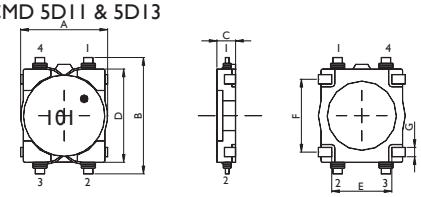
SCMD 4D06 & 4D08




SCMD 4D11 & 4D13




SCMD 5D11 & 5D13




## FEATURES

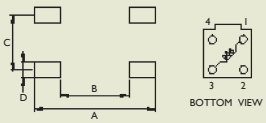
- Available in magnetically shielded.
- Low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC - Dc converter inductor applications.
- Available on tape and reel for auto surface mounting

## APPLICATIONS

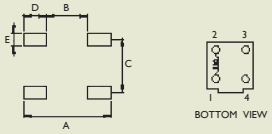
- power supply for VTRs.
- OA equipment.
- LCD televisions.
- Notebook PCs.
- Portable communication equipment.
- DC / DC converters, etc.

## RECOMENDED PATTERN

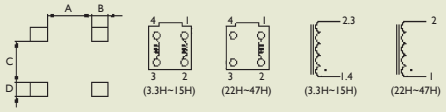
SCMD 4D06 & 4D08



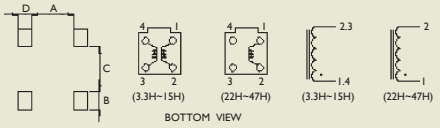

SCMD 4D11 & 4D13




SCMD 5D11




SCMD 5D13




## SHAPES AND DIMENSIONS

| TYPE | A Max | B Max | C 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 (μH) | D.C.R(Ω) Max. | | | | | | Rated D.C. Current(A) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SCMD 4D06 | SCMD 4D08 | SCMD 4D11 | SCMD 4D13 | SCMD 5D11 | SCMD 5D13 | SCMD 4D06 | SCMD 4D08 | SCMD 4D11 | SCMD 4D13 | SCMD 5D11 | SCMD 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: ±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 Δt=40°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 Δt=40°C lower at D.C superposition.
- Test Equipment:

  L: HP4192. LF Impedance Analyzer or HP4284A.

  DCR: CHEN HWA 502

  Rared dc Current: HP4284A+HP42841A

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq(KHz) | RDC(mΩ)Max | Rated Current(A)Max |
|---|---|---|---|---|
| SCMD4D06T-2R2 □-N | 2.2 | 100KHz,1V | 0.116 | 0.95 |
| SCMD4D06T-3R3 □-N | 3.3 | 100KHz,1V | 0.174 | 0.77 |
| SCMD4D06T-4R7 □-N | 4.7 | 100KHz,1V | 0.216 | 0.75 |
| SCMD4D06T-6R8 □-N | 6.8 | 100KHz,1V | 0.296 | 0.62 |
| SCMD4D06T-100 □-N | 10 | 100KHz,1V | 0.457 | 0.5 |
| SCMD4D06T-150 □-N | 15 | 100KHz,1V | 0.676 | 0.4 |
| SCMD4D06T-220 □-N | 22 | 100KHz,1V | 1.066 | 0.3 |
| SCMD4D06T-330 □-N | 33 | 100KHz,1V | 1.647 | 0.24 |
| SCMD4D06T-470 □-N | 47 | 100KHz,1V | 2.843 | 0.18 |

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq(KHz) | RDC(mΩ)Max | Rated Current(A)Max |
|---|---|---|---|---|
| SCMD4D08T-3R3 □-N | 3.3 | 100KHz,1V | 0.16 | 0.85 |
| SCMD4D08T-4R7 □-N | 4.7 | 100KHz,1V | 0.194 | 0.8 |
| SCMD4D08T-6R8 □-N | 6.8 | 100KHz,1V | 0.276 | 0.65 |
| SCMD4D08T-100 □-N | 10 | 100KHz,1V | 0.335 | 0.57 |
| SCMD4D08T-150 □-N | 15 | 100KHz,1V | 0.508 | 0.45 |
| SCMD4D08T-220 □-N | 22 | 100KHz,1V | 0.766 | 0.37 |
| SCMD4D08T-330 □-N | 33 | 100KHz,1V | 1.162 | 0.28 |
| SCMD4D08T-470 □-N | 47 | 100KHz,1V | 1.658 | 0.22 |
| SCMD4D08T-680 □-N | 68 | 100KHz,1V | 2.534 | 0.18 |
| SCMD4D08T-101 □-N | 100 | 100KHz,1V | 3.8 | 0.17 |
| SCMD4D11T-2R2 □-N | 2.2 | 100KHz,1V | 0.116 | 0.95 |
| SCMD4D11T-3R3 □-N | 3.3 | 100KHz,1V | 0.174 | 0.77 |
| SCMD4D11T-4R7 □-N | 4.7 | 100KHz,1V | 0.216 | 0.75 |
| SCMD4D11T-6R8 □-N | 6.8 | 100KHz,1V | 0.296 | 0.62 |
| SCMD4D11T-100 □-N | 10 | 100KHz,1V | 0.457 | 0.5 |
| SCMD4D11T-150 □-N | 15 | 100KHz,1V | 0.676 | 0.4 |
| SCMD4D11T-220 □-N | 22 | 100KHz,1V | 1.066 | 0.3 |
| SCMD4D11T-330 □-N | 33 | 100KHz,1V | 1.647 | 0.24 |
| SCMD4D11T-470 □-N | 47 | 100KHz,1V | 2.843 | 0.18 |
| SCMD4D13T-3R3 □-N | 3.3 | 100KHz,1V | 0.16 | 0.85 |
| SCMD4D13T-4R7 □-N | 4.7 | 100KHz,1V | 0.194 | 0.8 |
| SCMD4D13T-6R8 □-N | 6.8 | 100KHz,1V | 0.276 | 0.65 |
| SCMD4D13T-100 □-N | 10 | 100KHz,1V | 0.335 | 0.57 |
| SCMD4D13T-150 □-N | 15 | 100KHz,1V | 0.508 | 0.45 |
| SCMD4D13T-220 □-N | 22 | 100KHz,1V | 0.766 | 0.37 |
| SCMD4D13T-330 □-N | 33 | 100KHz,1V | 1.162 | 0.28 |
| SCMD4D13T-470 □-N | 47 | 100KHz,1V | 1.658 | 0.22 |
| SCMD4D13T-680 □-N | 68 | 100KHz,1V | 2.534 | 0.18 |
| SCMD4D13T-101 □-N | 100 | 100KHz,1V | 3.8 | 0.17 |
| SCMD4D13T-151 □-N | 150 | 100KHz,1V | 5.362 | 0.13 |
| SCMD5D11T-3R3 □-N | 3.3 | 100KHz,1V | 0.109 | 0.94 |
| SCMD5D11T-4R7 □-N | 4.7 | 100KHz,1V | 0.156 | 0.8 |
| SCMD5D11T-6R8 □-N | 6.8 | 100KHz,1V | 0.216 | 0.65 |
| SCMD5D11T-100 □-N | 10 | 100KHz,1V | 0.275 | 0.54 |
| SCMD5D11T-150 □-N | 15 | 100KHz,1V | 0.438 | 0.4 |
| SCMD5D11T-220 □-N | 22 | 100KHz,1V | 0.663 | 0.36 |
| SCMD5D11T-330 □-N | 33 | 100KHz,1V | 0.975 | 0.32 |
| SCMD5D11T-470 □-N | 47 | 100KHz,1V | 1.38 | 0.26 |
| SCMD5D11T-680 □-N | 68 | 100KHz,1V | 1.7 | 0.23 |
| SCMD5D11T-101 □-N | 100 | 100KHz,1V | 2.8 | 0.2 |
| SCMD5D13T-3R3 □-N | 3.3 | 100KHz,1V | 0.081 | 1.25 |
| SCMD5D13T-4R7 □-N | 4.7 | 100KHz,1V | 0.106 | 1.2 |
| SCMD5D13T-6R8 □-N | 6.8 | 100KHz,1V | 0.144 | 0.9 |
| SCMD5D13T-100 □-N | 10 | 100KHz,1V | 0.187 | 0.85 |
| SCMD5D13T-150 □-N | 15 | 100KHz,1V | 0.3 | 0.57 |
| SCMD5D13T-220 □-N | 22 | 100KHz,1V | 0.431 | 0.54 |
| SCMD5D13T-330 □-N | 33 | 100KHz,1V | 0.637 | 0.38 |
| SCMD5D13T-470 □-N | 47 | 100KHz,1V | 0.875 | 0.35 |

NOTE : □-tolerance M=±20%

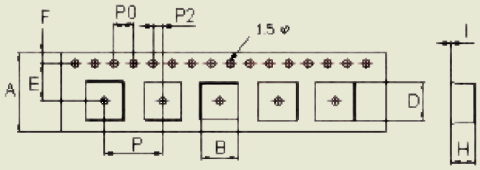
1.Operating temperature range -30°C~100°C

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

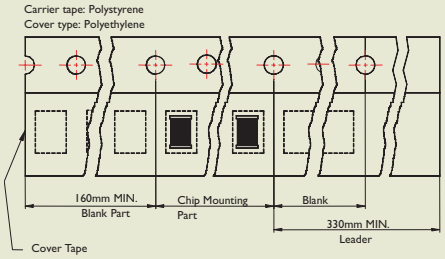
3.This indiscates the value of current when the inductance is 10% lower than it's intial value at D.C superimposition or D.C current when at Δt=40°C whichever is lower

## PACKAGING SPECIFICATIONS

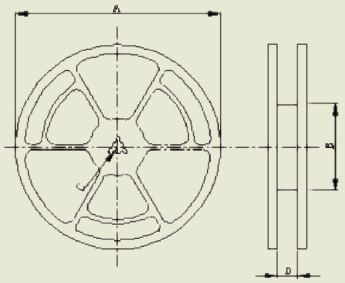
Tape Dimensions




Tape Material



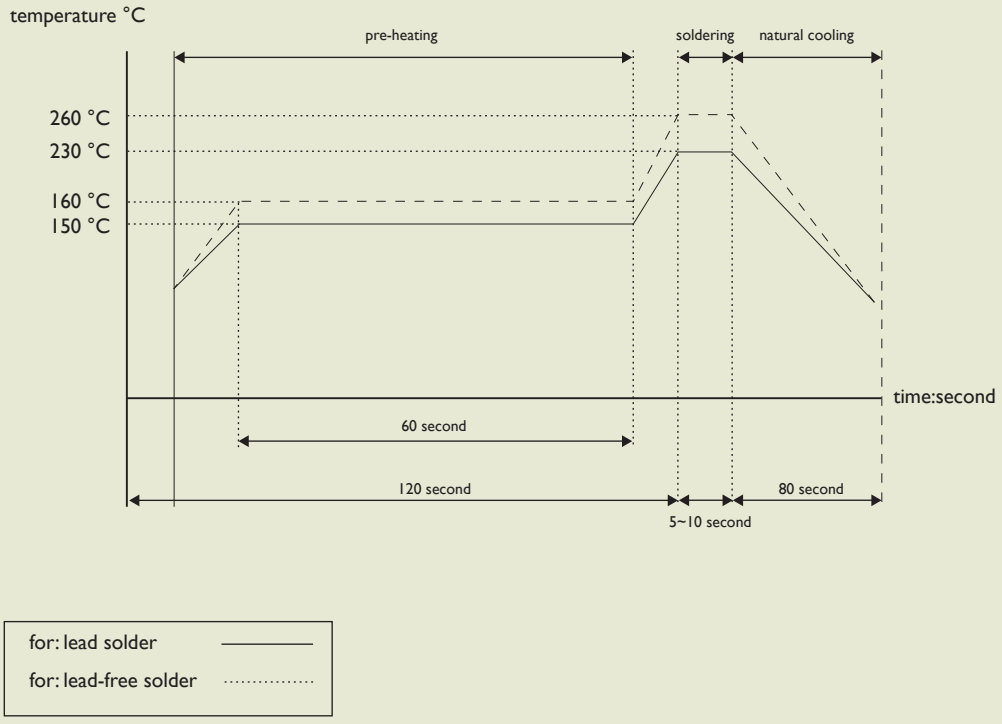

Reel Dimensions



| TYPE | TAPE DIMENSIONS | | | | | | | | | | REEL DIMENSIONS | | | | QUANTITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | D | E | F | H | I | P | P0 | P2 | A | B | C | D | PCS/REEL |
| 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



SMD Power Inductors

# SDS0402 Series

## FEATURES

Smallest size and high performance

High energy storage and very low resistance.

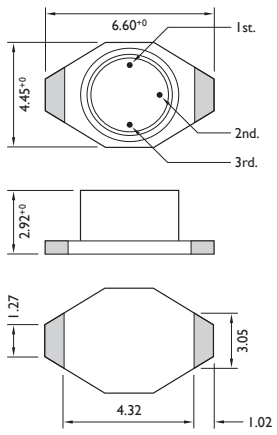
## PRODUCT IDENTIFICATION

SDS □□□□ □ -□□□□ -□

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

- Packaging: T: Tape and Reel
- Tolerance: M±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 10,000µH.

These magnetically shielded inductors are designed with a flat top and constructed of heat resistanct 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 (µH ± 20%) * | Q Min. | Q FREQUENCY (KHz) | DC RESISTANCE (Ω+0) Max. | SRF (MHz) | CURRENT (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 at 50MHz (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Irms (A) | Isat (A) | SRF (MHZ) TYP | Q FREQ MIN (KHz) | COLOR CODING 1st | 2nd | 3rd |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 |

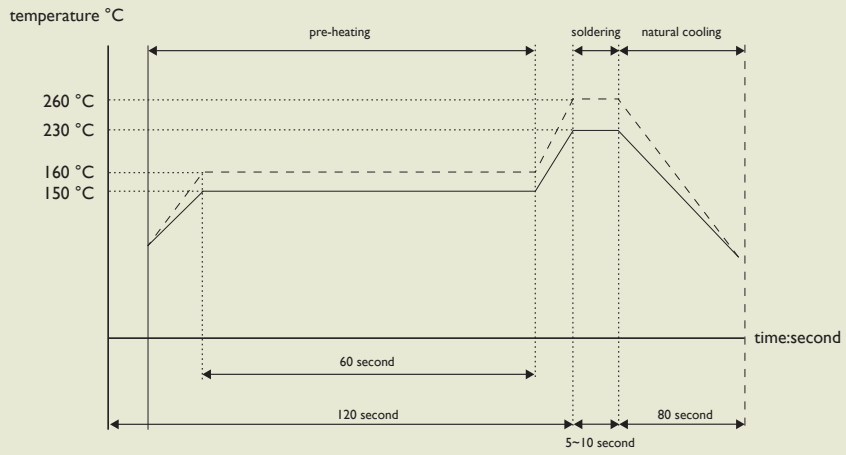
NOTE : ☐ -tolerance K=±10% / =±15% / M=±20% / N=+40% -20%

- 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.

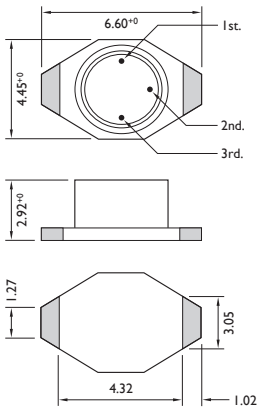
## PRODUCT IDENTIFICATION

SDS □□□□□ -□□□□ -□

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

- Packaging: T: Tape and Reel
- Tolerance: M±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

## 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 10,000µH.

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 (±%) | DC RESISTANCE (Ω+%) Max. | INSULATION CORE-WINDING (MΩ) | 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 at 50MHz (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Irms (A) | Isat (A) | SRF (MHZ) TYP | Q FREQ MIN (KHz) | COLOR CODING 1st | 2nd | 3rd |
|---|---|---|---|---|---|---|---|---|---|---|
| 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

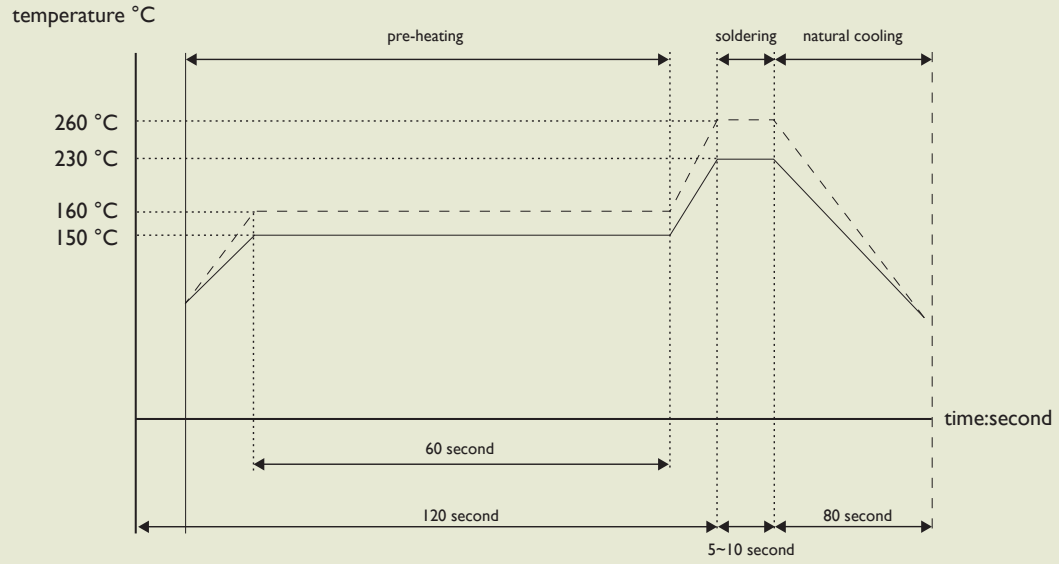
3.Insulation core-winding Test OSC @ 500mV

4. 30°C rise typ.at 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




for: lead solder ————

for: lead-free solder ·····

SMD Power Inductors

# SDS0804 Series

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.

## FEATURES

Smallest size and high performance

High energy storage and very low resistance.

## APPLICATIONS

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

Flash memory programmers, etc...

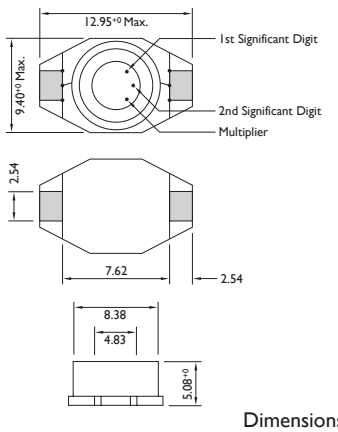
## PRODUCT IDENTIFICATION

SDS □□□□ □-□□□□-□

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

- Packaging: T: Tape and Reel
- Tolerance: M±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

## ELECTRICAL CHARACTERISTICS

| PART NO. | INDUCTANCE (µH ± 20%) * | DC RESISTANCE (Ω) Max. | Isat ** (A) Min. | Irms *** (A) | SRF (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 at 50MHz (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Irms (A) | Isat (A) | SRF (MHZ) TYP | Q FREQ MIN (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

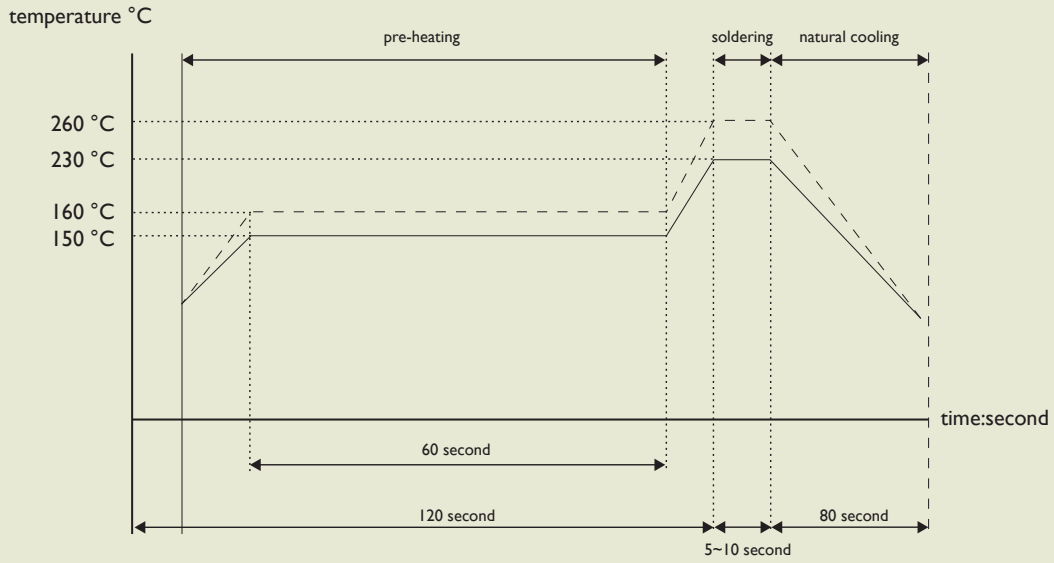
2.Inductance drop 10% typ. at last

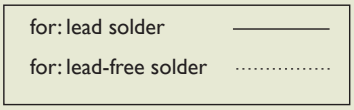
4. 40°C rise typ.at Irms.

"-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

# SDS1306 Series

## FEATURES

Smallest size and high performance

High energy storage and very low resistance.

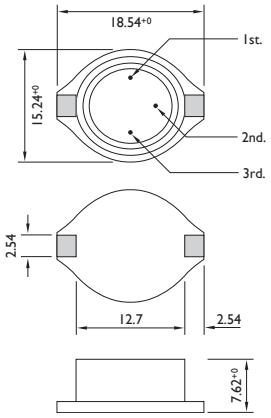
## PRODUCT IDENTIFICATION

SDS □□□□ □ -□□□ □ -□

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

- Packaging: T: Tape and Reel
- Tolerance: M±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

## APPLICATIONS

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

Flash memory programmers, etc...

The SDS1306 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 SDS1306 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 (µH ± 20%) * | DC RESISTANCE (Ω) Max. | Isat ** (A) | Irms *** (A) | SRF MHz ** (Ref.) Max. |
|---|---|---|---|---|---|
| SDS1306T-100M-S | 10 | 0.040 | 5.5 | 3.9 | 24 |
| SDS1306T-150M-S | 15 | 0.048 | 4.5 | 3.4 | 16 |
| SDS1306T-220M-S | 22 | 0.059 | 3.5 | 3.1 | 14 |
| SDS1306T-330M-S | 33 | 0.075 | 3.3 | 2.8 | 11 |
| SDS1306T-470M-S | 47 | 0.097 | 2.7 | 2.4 | 8.0 |
| SDS1306T-680M-S | 68 | 0.138 | 2.2 | 2.0 | 7.0 |
| SDS1306T-101M-S | 100 | 0.207 | 1.7 | 1.7 | 5.5 |
| SDS1306T-151M-S | 150 | 0.293 | 1.3 | 1.3 | 4.8 |
| SDS1306T-221M-S | 220 | 0.470 | 1.1 | 1.1 | 4.0 |
| SDS1306T-331M-S | 330 | 0.780 | 0.86 | 0.86 | 3.0 |
| SDS1306T-471M-S | 470 | 1.08 | 0.73 | 0.73 | 2.4 |
| SDS1306T-681M-S | 680 | 1.40 | 0.64 | 0.64 | 2.0 |
| SDS1306T-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 at 50MHz (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Irms (A) | Isat (A) | SRF (MHZ) TYP | Q FREQ MIN (KHz) |
|---|---|---|---|---|---|---|---|
| SDS1306T-100 □ -N | 10 | 100KHZ,0.1V | 0.04 | 3.9 | 5.5 | 24 | 40/100 |
| SDS1306T-150 □ -N | 15 | 100KHZ,0.1V | 0.048 | 3.4 | 4.5 | 16 | 40/100 |
| SDS1306T-220 □ -N | 22 | 100KHZ,0.1V | 0.059 | 3.1 | 3.5 | 14 | 30/100 |
| SDS1306T-330 □ -N | 33 | 100KHZ,0.1V | 0.075 | 2.8 | 3.3 | 11 | 40/100 |
| SDS1306T-470 □ -N | 47 | 100KHZ,0.1V | 0.097 | 2.4 | 2.7 | 8 | 40/100 |
| SDS1306T-680 □ -N | 68 | 100KHZ,0.1V | 0.14 | 2 | 2.2 | 7 | 40/100 |
| SDS1306T-101 □ -N | 100 | 100KHZ,0.1V | 0.21 | 1.7 | 1.7 | 5.5 | 40/100 |
| SDS1306T-151 □ -N | 150 | 100KHZ,0.1V | 0.3 | 1.3 | 1.3 | 4.8 | 50/100 |
| SDS1306T-221 □ -N | 220 | 100KHZ,0.1V | 0.47 | 1.1 | 1.1 | 4 | 50/100 |
| SDS1306T-331 □ -N | 330 | 100KHZ,0.1V | 0.78 | 0.86 | 0.86 | 3 | 50/100 |
| SDS1306T-471 □ -N | 470 | 100KHZ,0.1V | 1.08 | 0.73 | 0.73 | 2.4 | 50/100 |
| SDS1306T-681 □ -N | 680 | 100KHZ,0.1V | 1.4 | 0.64 | 0.64 | 2 | 60/100 |
| SDS1306T-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%

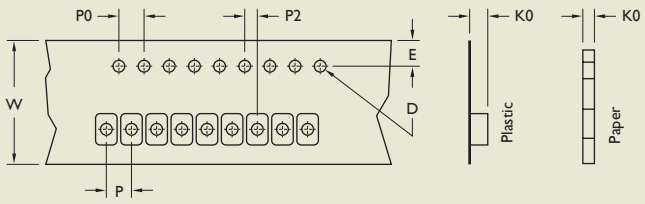
1.Operating temperature range -40°C~85°C

2.Inductance drop 10% typ. at last

4. 40°C rise typ.at Irms.

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

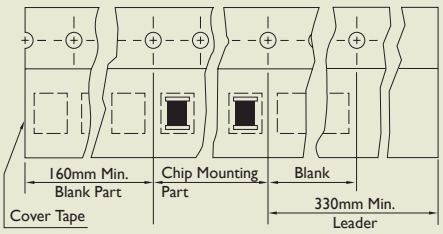
## TAPE DIMENSIONS



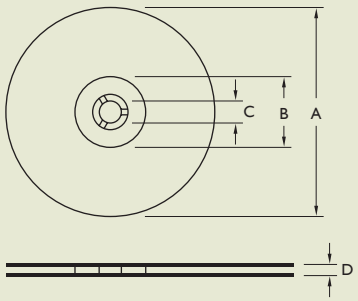

## TAPE MATERIAL

Camer Tape : Polystyrene

Cover Type : Polyethylene

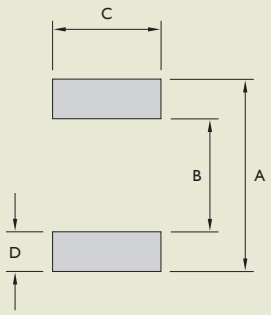



## REEL DIMENSIONS




## 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 |
| 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 |
| SDS1306T | 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

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | 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. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

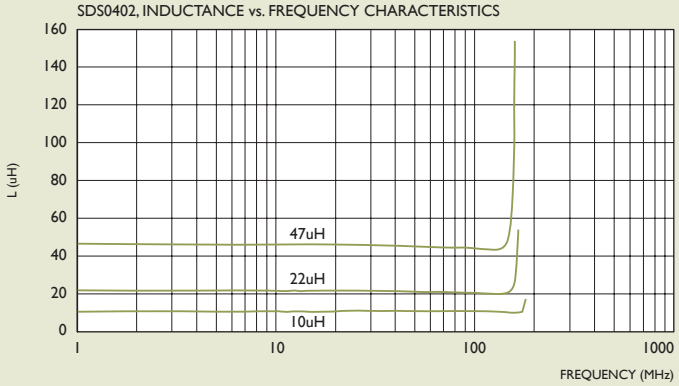
| | | |
|---|---|---|
| 1-2-2 | Temperature Cycle | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | Low Temperature Resistance | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |

## TYPICAL ELECTRICAL CHARACTERISTICS

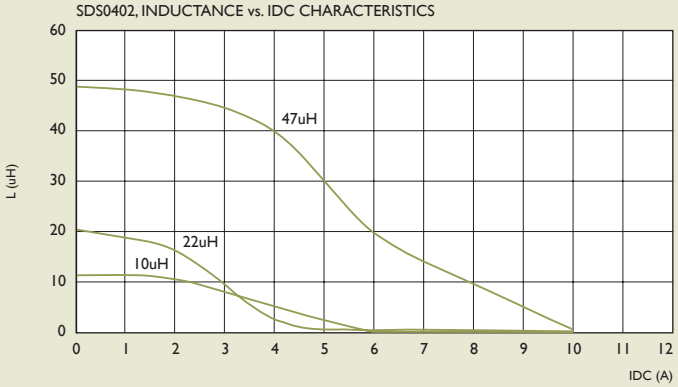
Curves of SCD Series

Test Instruments : HP4291A Impedance / Material Analyzer

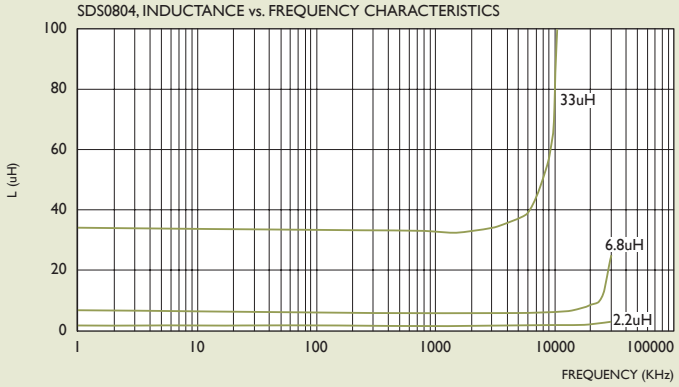
SDS0402, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



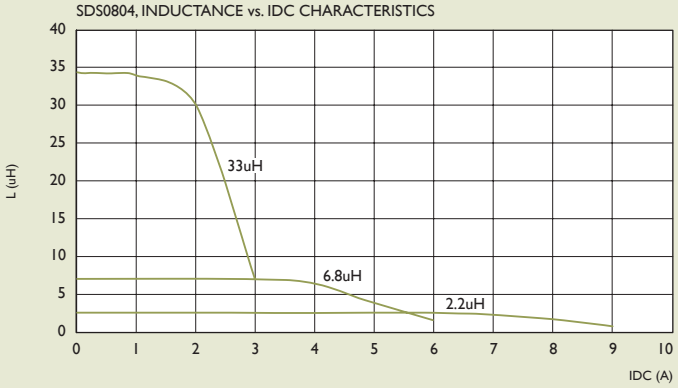

SDS0402, INDUCTANCE vs. IDC CHARACTERISTICS



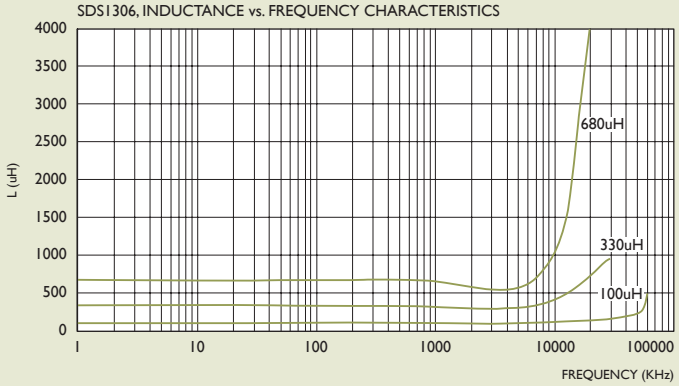

SDS0804, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



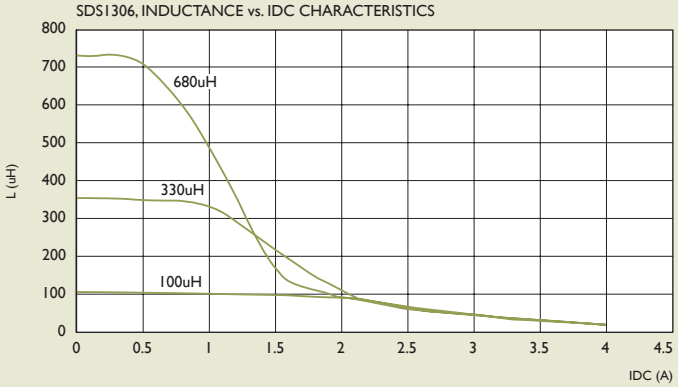

SDS0804, INDUCTANCE vs. IDC CHARACTERISTICS




SDS1306, INDUCTANCE vs. FREQUENCY CHARACTERISTICS

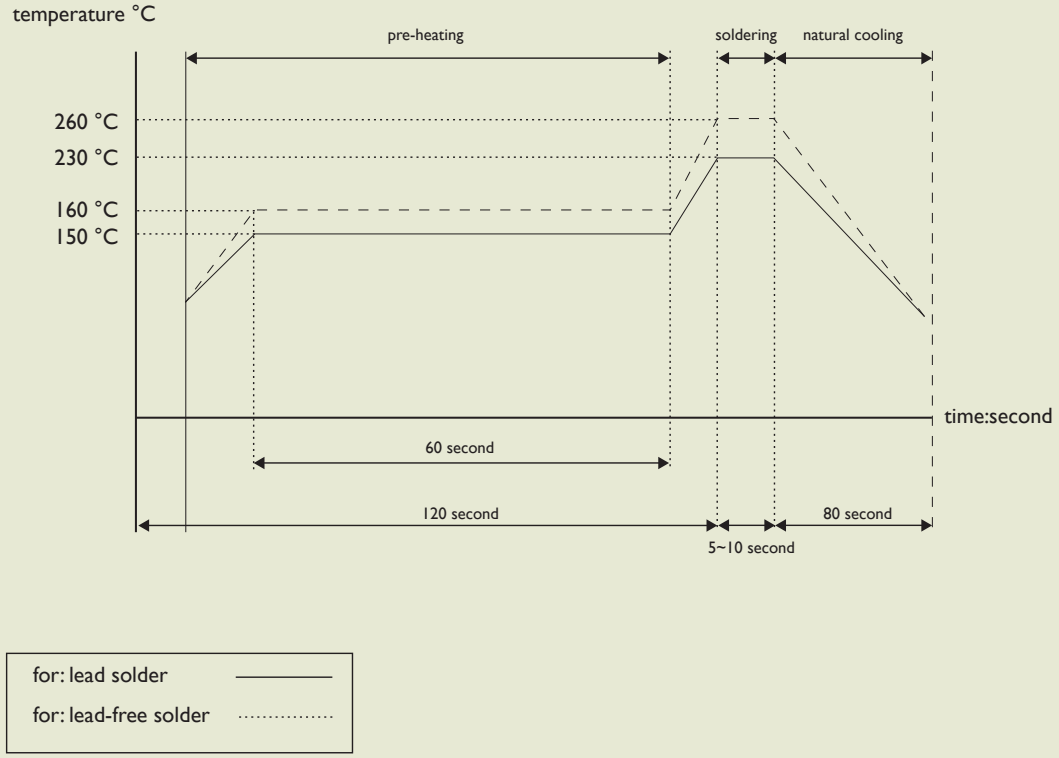



SDS1306, INDUCTANCE vs. IDC CHARACTERISTICS



## RECOMMEND SOLDERING CONDITIONS

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



SMD Power Inductors

# SLF Series

## FEATURES

- Low resistance and high currents

Designed for low - profile type with low Rdc and large current.

The magnetic shielded type is suitable for high density mounting.

Flat bottom surface allows for reliable mounting onto the board.

Soldering conditions can be easily confirmed when mounting onto the board.

Provide with embossed carrier type packaging for automatic mounting machine.

## PRODUCT IDENTIFICATION

SLF □ □□□ □ - □□□□ - □

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

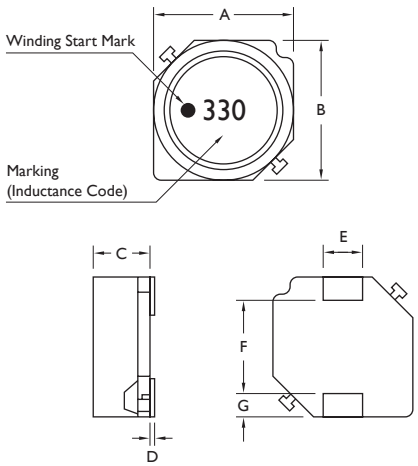
## APPLICATIONS

Portable telephones, computers, hard disk divers and

Other electronic equipment.

- Packaging: T : Tape and Reel
- Tolerance: M: ±20%
- Note: YAGEO will start to release SLF 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. SLF0628T-4R7M-N

## SHAPES AND DIMENSIONS




Dimensions : mm

| TYPE | A | B | C | D | E | F | G | WEIGHT |
|---|---|---|---|---|---|---|---|---|
| SLF0628 | 6 ± 0.2 | 6 ± 0.2 | 2.8 ± 0.2 | 0.05typ | 2 typ | 4.0 typ | 0.9 typ | |
| SLF0728 | 7 ± 0.2 | 7 ± 0.2 | 2.8 ± 0.2 | 0.1typ | 2 typ | 4.9 typ | 0.9 typ | |
| SLF0730 | 7 ± 0.2 | 7 ± 0.2 | 3.0 ± 0.2 | 0.1typ | 2 typ | 4.9 typ | 0.9 typ | |
| SLF0732 | 7 ± 0.2 | 7 ± 0.2 | 3.2 ± 0.2 | 0.1typ | 2 typ | 4.9 typ | 0.9 typ | |
| SLF0745 | 7 ± 0.2 | 7 ± 0.2 | 4.5 ± 0.3 | 0.1typ | 2 typ | 4.9 typ | 0.9 typ | |
| SLF1045 | 10.1 ± 0.3 | 10.1±0.3 | 4.5 ± 0.3 | 0.15typ | 3 typ | 6 typ | 2 typ | |
| SLF1255 | 12.5± 0.3 | 12.5±0.3 | 5.5 ± 0.3 | 0.1typ | 3 typ | 8.6 typ | 2 typ | |
| SLF1265 | 12.5± 0.3 | 12.5±0.3 | 6.5±0.35 | 0.1typ | 3 typ | 8.6 typ | 2 typ | |
| SLF1275 | 12.5± 0.3 | 12.5±0.3 | 7.5±0.35 | 0.1typ | 3 typ | 8.6 typ | 2 typ | |

## ELECTRICAL CHARACTERISTICS SLF0628 SERIES

| PART NO. | INDUCTANCE (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. | ITEMP (A) Max. |
|---|---|---|---|---|---|---|
| SLF0628T-4R7M-S | 4.7 | 20 | 1 | 0.0284 | 1.6 | 2.5 |
| SLF0628T-6R8M-S | 6.8 | 20 | 1 | 0.0354 | 1.5 | 2.2 |
| SLF0628T-100M-S | 10 | 20 | 1 | 0.0532 | 1.3 | 1.8 |
| SLF0628T-150M-S | 15 | 20 | 1 | 0.0745 | 1.0 | 1.4 |
| SLF0628T-220M-S | 22 | 20 | 1 | 0.104 | 0.77 | 1.3 |
| SLF0628T-330M-S | 33 | 20 | 1 | 0.148 | 0.69 | 1.1 |
| SLF0628T-470M-S | 47 | 20 | 1 | 0.21 | 0.59 | 0.92 |
| SLF0628T-680M-S | 68 | 20 | 1 | 0.29 | 0.50 | 0.78 |
| SLF0628T-101M-S | 100 | 20 | 1 | 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 (μH) | TEST Frequency | RDC (Ω) ± 20% | IDC (A)Max | ITEMP (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=±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 (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. |
|---|---|---|---|---|---|
| SLF0728T-3R3M-S | 3.3 | 20 | 1 | 0.037 | 1.6 |
| SLF0728T-4R7M-S | 4.7 | 20 | 1 | 0.045 | 1.5 |
| SLF0728T-6R8M-S | 6.8 | 20 | 1 | 0.059 | 1.3 |
| SLF0728T-100M-S | 10 | 20 | 1 | 0.083 | 1.1 |
| SLF0728T-150M-S | 15 | 20 | 1 | 0.13 | 0.88 |
| SLF0728T-220M-S | 22 | 20 | 1 | 0.18 | 0.75 |
| SLF0728T-330M-S | 33 | 20 | 1 | 0.24 | 0.65 |
| SLF0728T-470M-S | 47 | 20 | 1 | 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 (μH) | TEST Frequency | RDC (Ω) ± 20% | RATED CURRENT (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=±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 SLF0730 SERIES

| PART NO. | INDUCTANCE (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (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 (μH) | TEST Frequency | RDC (Ω) ± 20% | RATED CURRENT (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=±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 (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (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 (μH) | TEST Frequency | RDC (Ω) ± 20% | RATED CURRENT (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=±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 SLF0745 SERIES

| PART NO. | INDUCTANCE (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. | ITEMP (A) Max. |
|---|---|---|---|---|---|---|
| SLF0745T-3R3M-S | 3.3 | 20 | 1 | 0.02 | 2.5 | 2.3 |
| SLF0745T-4R7M-S | 4.7 | 20 | 1 | 0.03 | 2 | 2.1 |
| SLF0745T-6R8M-S | 6.8 | 20 | 1 | 0.039 | 1.7 | 1.74 |
| SLF0745T-100M-S | 10 | 20 | 1 | 0.036 | 1.3 | 1.78 |
| SLF0745T-150M-S | 15 | 20 | 1 | 0.052 | 1.1 | 1.53 |
| SLF0745T-220M-S | 22 | 20 | 1 | 0.061 | 0.9 | 1.34 |
| SLF0745T-330M-S | 33 | 20 | 1 | 0.096 | 0.82 | 1.09 |
| SLF0745T-470M-S | 47 | 20 | 1 | 0.125 | 0.75 | 0.92 |
| SLF0745T-680M-S | 68 | 20 | 1 | 0.175 | 0.6 | 0.77 |
| SLF0745T-101M-S | 100 | 20 | 1 | 0.25 | 0.5 | 0.65 |
| SLF0745T-151M-S | 150 | 20 | 1 | 0.34 | 0.4 | 0.55 |
| SLF0745T-221M-S | 220 | 20 | 1 | 0.52 | 0.33 | 0.45 |
| SLF0745T-331M-S | 330 | 20 | 1 | 0.74 | 0.25 | 0.37 |
| SLF0745T-471M-S | 470 | 20 | 1 | 1.05 | 0.22 | 0.31 |
| SLF0745T-681M-S | 680 | 20 | 1 | 1.48 | 0.2 | 0.27 |
| SLF0745T-102M-S | 1000 | 20 | 1 | 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 (μH) | TEST Frequency | RDC (Ω) ± 20% | IDC (A)Max | ITEMP (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=±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 (μH) | TOLERANCE (±%) | TEST FREQUENCY L(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. | ITEMP (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 (μH) | TEST Frequency | RDC (Ω) ± 20% | IDC (A)Max | ITEMP (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=±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 (μH) | TOLERANCE (±%) | TEST FREQUENCY (KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. | ITEMP (A) Max. |
|---|---|---|---|---|---|---|
| SLF1255T-6R0M-S | 6 | 20 | 1 | 0.0164 | 3.6 | 4.9 |
| SLF1255T-100M-S | 10 | 20 | 1 | 0.0215 | 3.4 | 4.3 |
| SLF1255T-150M-S | 15 | 20 | 1 | 0.0259 | 2.8 | 3.9 |
| SLF1255T-220M-S | 22 | 20 | 1 | 0.0338 | 2.3 | 3.4 |
| SLF1255T-330M-S | 33 | 20 | 1 | 0.0415 | 1.9 | 3.1 |
| SLF1255T-470M-S | 47 | 20 | 1 | 0.0618 | 1.6 | 2.5 |
| SLF1255T-680M-S | 68 | 20 | 1 | 0.0832 | 1.3 | 2.2 |
| SLF1255T-101M-S | 100 | 20 | 1 | 0.117 | 1.1 | 1.8 |
| SLF1255T-151M-S | 150 | 20 | 1 | 0.19 | 0.88 | 1.4 |
| SLF1255T-221M-S | 220 | 20 | 1 | 0.27 | 0.72 | 1.2 |
| SLF1255T-331M-S | 330 | 20 | 1 | 0.41 | 0.59 | 1 |
| SLF1255T-471M-S | 470 | 20 | 1 | 0.52 | 0.49 | 0.88 |
| SLF1255T-681M-S | 680 | 20 | 1 | 0.76 | 0.43 | 0.73 |
| SLF1255T-102M-S | 1000 | 20 | 1 | 1.12 | 0.34 | 0.6 |
| SLF1255T-152M-S | 1500 | 20 | 1 | 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 (μH) | TEST Frequency | RDC (Ω) ± 20% | IDC (A)Max | ITEMP (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 | 1 |
| 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=±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 SLF1265 SERIES

| PART NO. | INDUCTANCE (μH) | TOLERANCE (±%) | TEST FREQUENCY (KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. | ITEMP (A) Max. |
|---|---|---|---|---|---|---|
| SLF1265T-2R0M-S | 2 | 30 | 1 | 0.0117 | 10 | 6.2 |
| SLF1265T-4R2M-S | 4.2 | 30 | 1 | 0.015 | 7.3 | 5.5 |
| SLF1265T-7R0M-S | 7 | 30 | 1 | 0.0177 | 5.7 | 5 |
| SLF1265T-100M-S | 10 | 20 | 1 | 0.0202 | 5 | 4.8 |
| SLF1265T-150M-S | 15 | 20 | 1 | 0.0237 | 4.2 | 4.4 |
| SLF1265T-220M-S | 22 | 20 | 1 | 0.0316 | 3.5 | 3.8 |
| SLF1265T-330M-S | 33 | 20 | 1 | 0.0406 | 2.8 | 3.4 |
| SLF1265T-470M-S | 47 | 20 | 1 | 0.0578 | 2.4 | 2.8 |
| SLF1265T-680M-S | 68 | 20 | 1 | 0.0787 | 2 | 2.4 |
| SLF1265T-101M-S | 100 | 20 | 1 | 0.123 | 1.6 | 1.9 |
| SLF1265T-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 (μH) | TEST Frequency | RDC (Ω) ± 20% | IDC (A)Max | ITEMP (A) Max. |
|---|---|---|---|---|---|
| SLF1265T-2R0 □ -N | 2 | 0.5V 1KHZ | 0.0117 | 10 | 6.2 |
| SLF1265T-4R2 □ -N | 4.2 | 0.5V 1KHZ | 0.015 | 7.3 | 5.5 |
| SLF1265T-7R0 □ -N | 7 | 0.5V 1KHZ | 0.0177 | 5.7 | 5 |
| SLF1265T-100 □ -N | 10 | 0.5V 1KHZ | 0.0202 | 5 | 4.8 |
| SLF1265T-150 □ -N | 15 | 0.5V 1KHZ | 0.0237 | 4.2 | 4.4 |
| SLF1265T-220 □ -N | 22 | 0.5V 1KHZ | 0.0316 | 3.5 | 3.8 |
| SLF1265T-330 □ -N | 33 | 0.5V 1KHZ | 0.0406 | 2.8 | 3.4 |
| SLF1265T-470 □ -N | 47 | 0.5V 1KHZ | 0.0578 | 2.4 | 2.8 |
| SLF1265T-680 □ -N | 68 | 0.5V 1KHZ | 0.0787 | 2 | 2.4 |
| SLF1265T-101 □ -N | 100 | 0.5V 1KHZ | 0.123 | 1.6 | 1.9 |
| SLF1265T-221 □ -N | 220 | 0.5V 1KHZ | 0.273 | 1 | 1.2 |

NOTE : □ -tolerance M=±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 SLF1275 SERIES

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

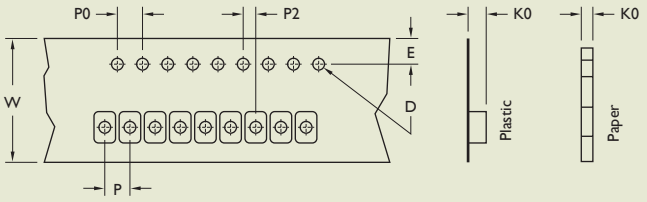
1.IDC Current : Value obtained when DC current flows and the initial value of inductance has fallen by 30%.

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 FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

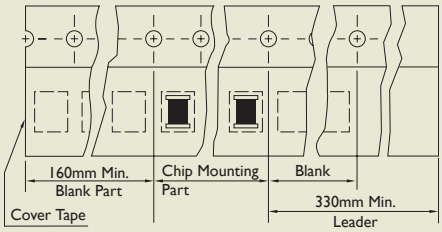
## TAPE DIMENSIONS



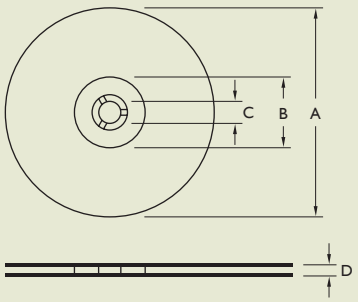

## TAPE MATERIAL

Camer Tape : Polystyrene

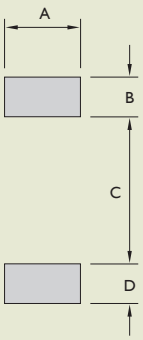
Cover Type : Polyethylene




## 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 |
| SLF1045 | 5.5 | 1.55 | 1.75 | 24 | 24 | 4 | 2 | 3.2 | 2.5 | 5.6 | 2.5 | 330 | 100 | 13 | 24.4 | 500 |
| SLF1255 | 6.5 | 1.55 | 1.75 | 24 | 24 | 4 | 2 | 3.2 | 2.5 | 8.6 | 2.5 | 330 | 100 | 13 | 24.4 | 500 |
| SLF1265 | 7.5 | 1.55 | 1.75 | 24 | 24 | 4 | 2 | 3.2 | 2.5 | 8.6 | 2.5 | 330 | 100 | 13 | 24.4 | 500 |
| SLF1275 | 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

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

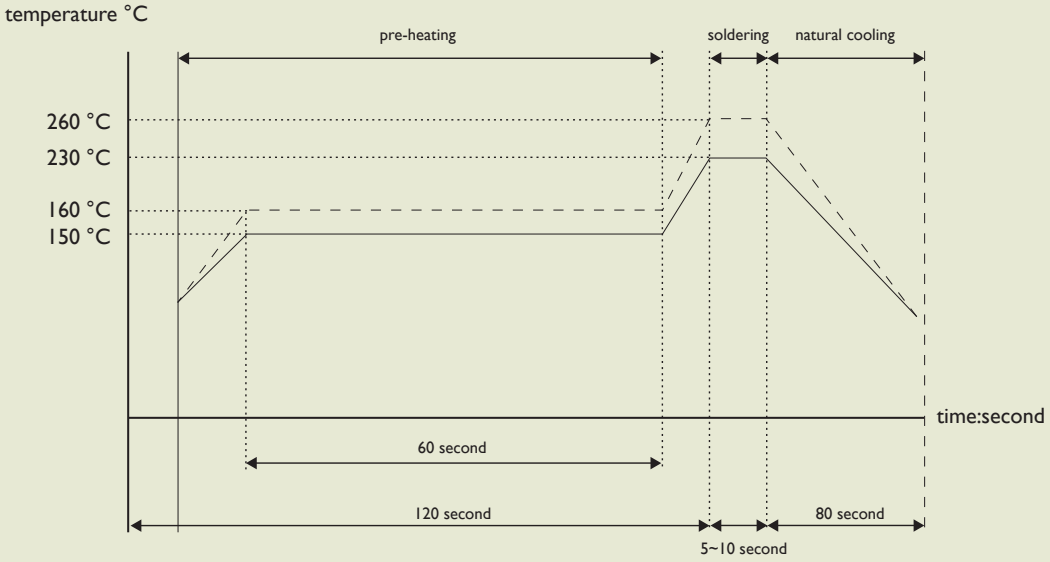
| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to 125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | | |
|---|---|---|
| | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | 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

# SLF 1055 Series

## Low Profile Low Power Low & high Current

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

Portable telephones, computers, hard disk drives and other electronic equipment

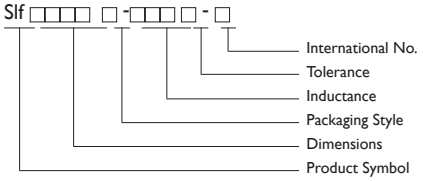
Operating Temperature: -20°C~85°C

## FEATURES

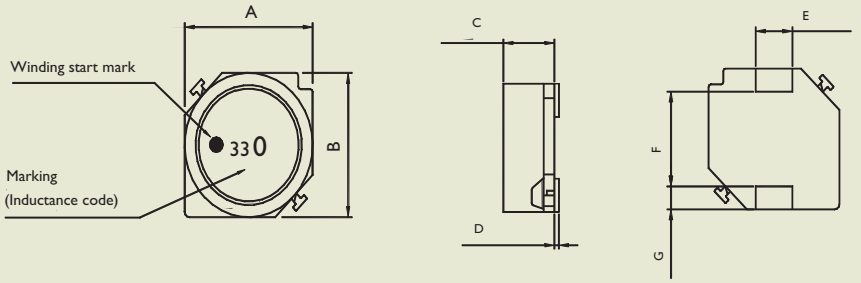
Low resistance and high currents

- Packaging: T : Tape and Reel
- Tolerance : M : ±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



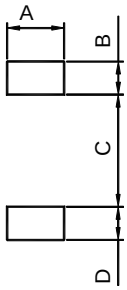

## SHAPES AND DIMENSIONS




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 (μH) | TOLERANCE (±%) | TEST FREQUENCY I(KHz) | DC RESISTANCE (Ω) ± 20% | RATED CURRENT (A) Max. |
|---|---|---|---|---|---|
| SLF1055T-100M-S | 10 | 20 | 1 | 40 | 3.5 |
| SLF1055T-330M-S | 33 | 20 | 1 | 85 | 2.1 |

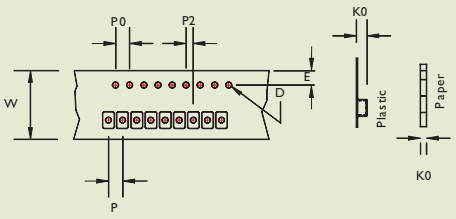
• Rated current:Value obtaned when DC current flows and the initial value of inductance has by 15%

• Test equipment Inductance: HP4192A LF impedance analyzer or equivalent(Test frequency: 1KHz/0.5V)

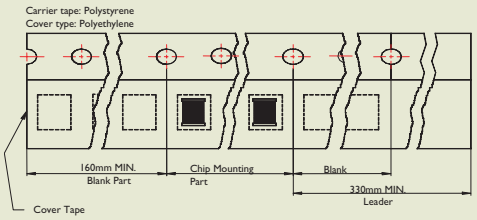
• RDC: CH502BC Digital multimeter, or equivalent.

## PACKAGING SPECIFICATIONS

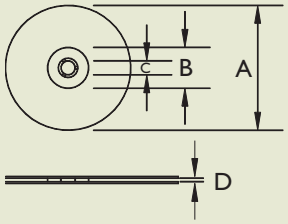
Tape Dimensions




Tape Material



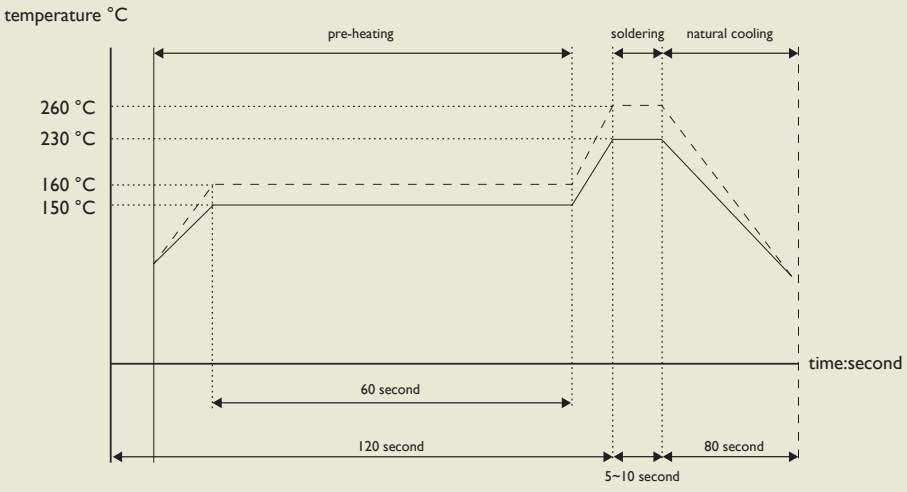

Reel Dimensions




| TYPE | TAPE DIMENSIONS | | | | | | | REEL DIMENSIONS | | | | QUANTITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K0 | D | E | W | P | P0 | P2 | A | B | C | D | PCS/REEL |
| SLF1055 | 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 SSL0402 Series can be used as ultra high L inductors at zero or low current.

### SPECIFICATIONS / OPERATING PARAMETERS

| PART NO. | INDUCTANCE @100KHz, 0 Adc (µH ± 20%) | DC RESISTANCE (Ω) Max. | INDUCTANCE RATING * (µH) | CURRENT RAGING ** (A) | ENERGY STORAGE (µ Joules) Max. | SWITCHING FREQUECNY Max. | SRF (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

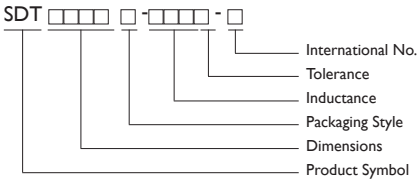
## FEATURES

Ultra high L and low current

Functions equally well in filter and smoothing circuit applications.

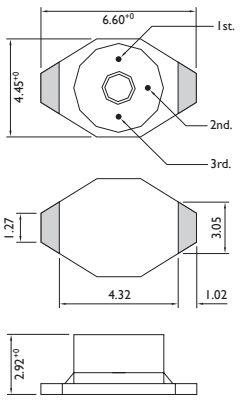
• Available in 2 sizes.

## PRODUCT IDENTIFICATION




• Packaging: T: Tape and Reel
• Tolerance: M: ±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




Dimensions : mm

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (UH) | RDC (Ω)MAX | SRF (MHz)typ | CURRENT RATING (A) | Inductan CE (uH) | MAX ENERGY (uJoules) | MAX SWITCHIN 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

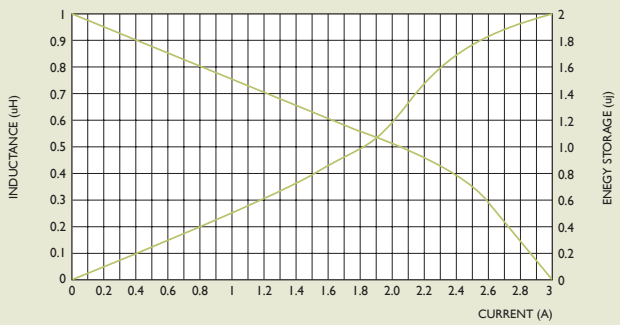
2.Inductance Rating: Measured at the ratted current.SDT Series inductors are design for current

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

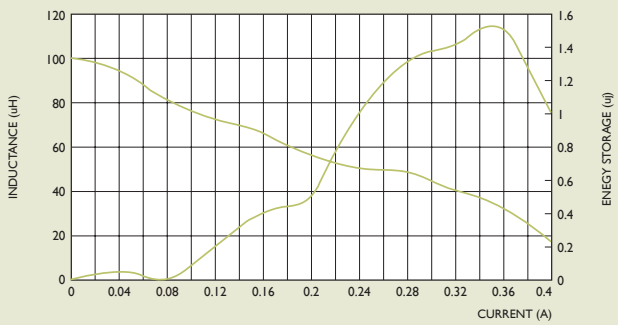
"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT

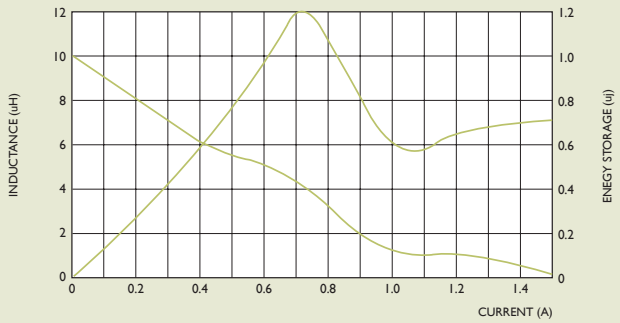
SDT0402Y-1R0M-S



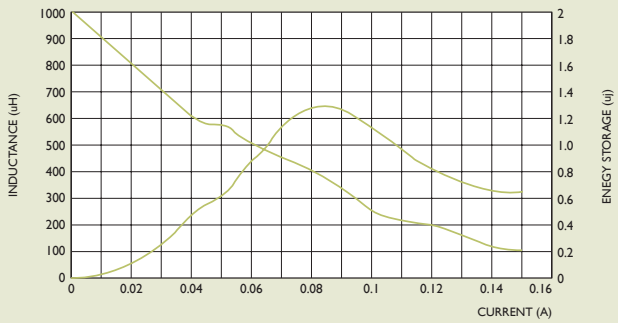

SDT0402T-101M-S




SDT0402T-100M-S

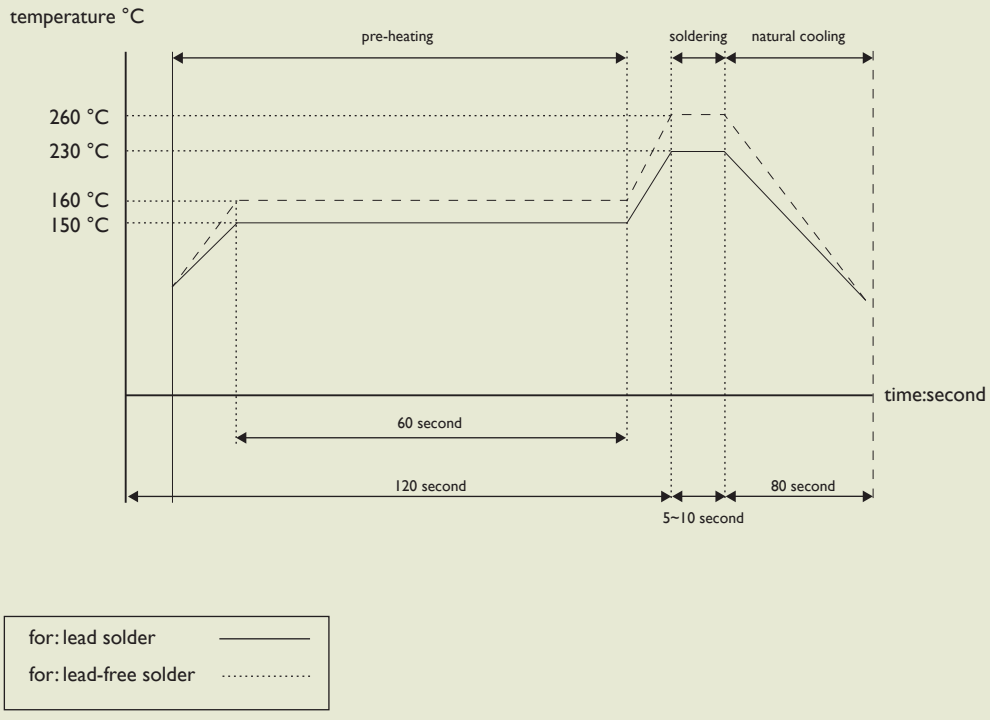



SDT0402Y-102M-S




## RECOMMEND SOLDERING CONDITIONS

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



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.

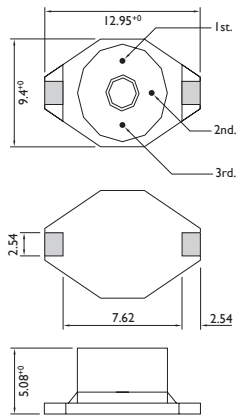
## PRODUCT IDENTIFICATION

SDT □□□□ □ -□□□□ - □

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

- Packaging: T: Tape and Reel
- Tolerance: M: ±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 TAGEO Internal No will be changed to "N" as identification. Ex. SDT0402T-1R0M-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 @100KHZ, 0 ADC (μH ±20%) | DC RESISTANCE (Ω) Max. | SRF TYP (MHz) | INDUCTANCE RATING * (ΩH) | CURRENT RAGING ** (A) | ENERGY STORAGE (μ JOULES) Max. | SWITCHING FREQUENCY Max. |
| SDT0804T-1R0M-S | 1.0 | 0.025 | 60 | 0.50 | 5.0 | 9 | 1 MHz |
| SDT0804T-1R5M-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 (μH) | RDC (Ω) Max. | SRF (MHz)TYP | CURRENT RAGING (A) | INDUCTANCE CE (uH) | MAX ENERGE (μ JOULES) | MAX SWITCHING 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

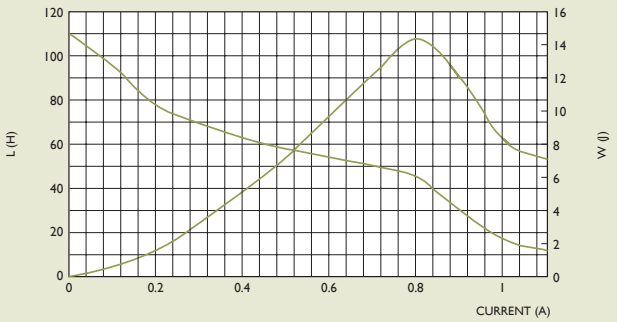
2.Inductance Rating: Measured at the ratted current.SDT Series inductors are design for current

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

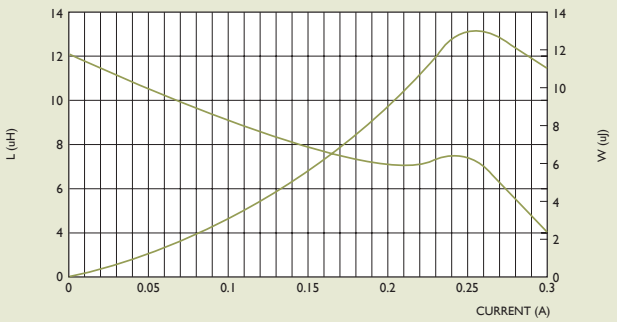
"-N"FOR COMPLETELY LEAD FREETYPE(INCLUDING FERRITE BODY & SOLDER)

## TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT

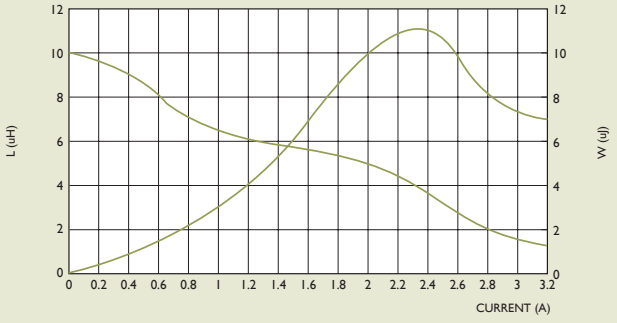
SDT0804T-1R0M-S



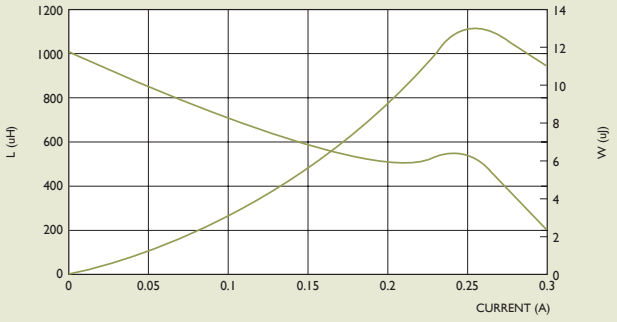

SDT0804T-102M-S



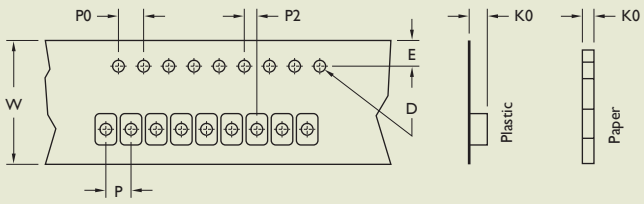

SDT0804T-100M-S




SDT0804T-102M-S



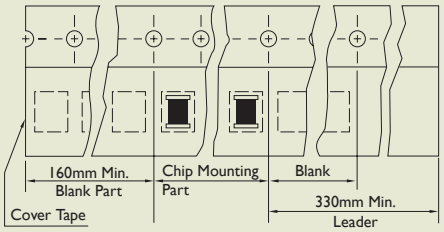
## TAPE DIMENSIONS



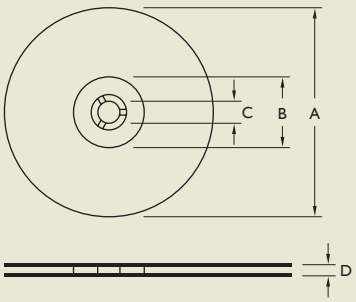

## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

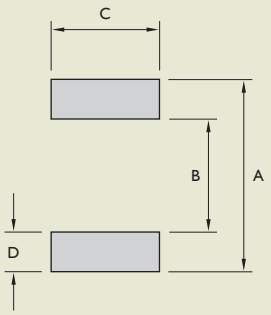



## REEL DIMENSIONS




## 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

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

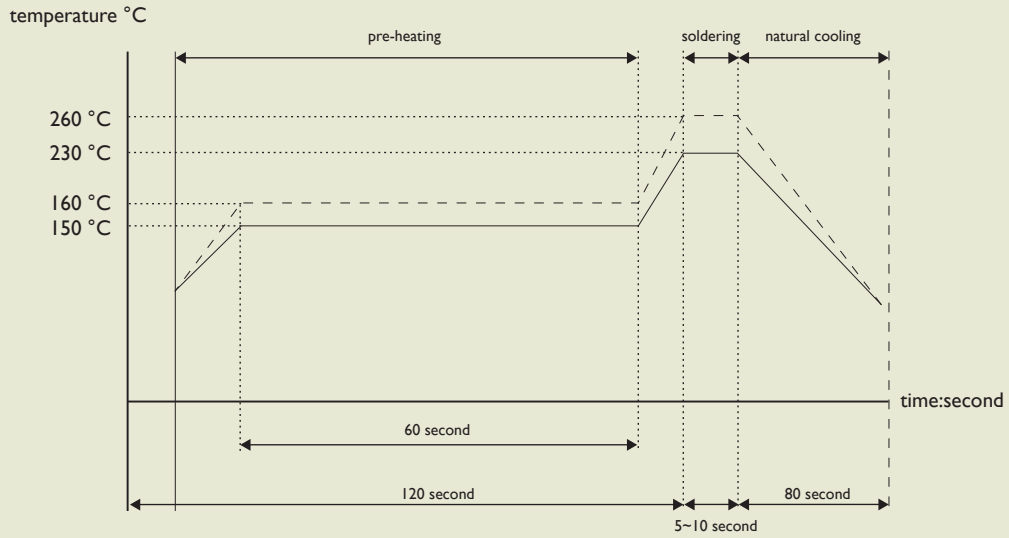
| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to 125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | | | |
|---|---|---|---|
| | | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | 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 1μH to 1000μH
- Current range from 2.3Amps to 0.08Amps
- Very competitive cost design.

## PRODUCT IDENTIFICATION

SSL □□□□ □ - □□□□ - □

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

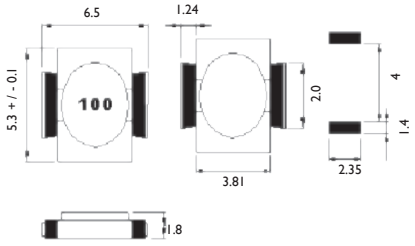
## ENVIRONMENTAL DATA

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




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

Digital cameras, CD players, cellular phones, and PDAs

PCMCIA cards

GPS systems

## ELECTRICAL CHARACTERISTICS

| PART NO. | INDUCTANCE (μH ±20%) * | SRF (MHz) | DC RESISTANCE ($\Omega^{+0}$) | Isat ** (A) | Irms *** (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.

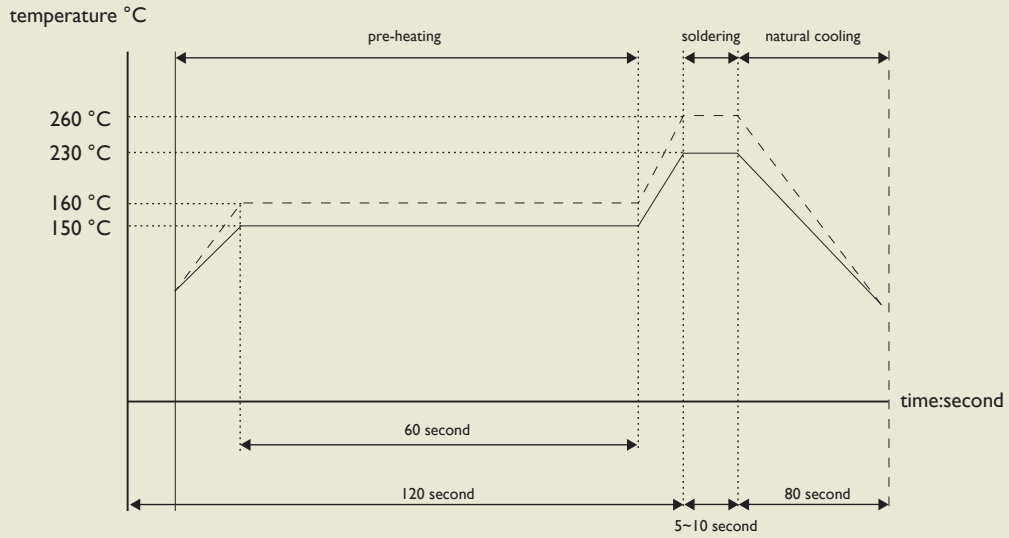
*** Averafe current for a 40°C rise above 25°C ambient.

**** 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 ·····

SMD Power Inductors

# SSL0400 Series

## FEATURES

High energy storage and very low resistance.

Smallest size and high performance

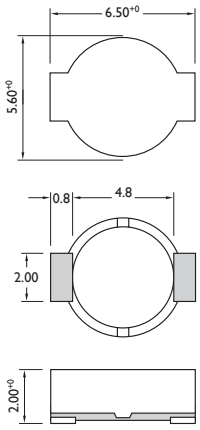
## PRODUCT IDENTIFICATION

SSL □□□□ □ -□□□ □ -□

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

- Packaging: T : Tape and Reel
- Tolerance: M: ±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 1µH to 1mH.

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 * (µH) | TOLERANCE (±%) | DC RESISTANCE (Ω) Max. | I sat ** (A) | I rms *** (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 Isat

*** ΔT = 30°C Rise Typ at Irms Operating Temperature Range -40°C to +85°C

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

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

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

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

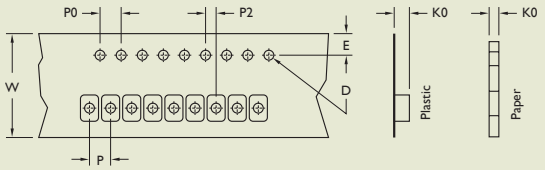
2.Inductance drop = 10% typ. at Isat

3.ΔT=40°C rise typ at Irms.

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

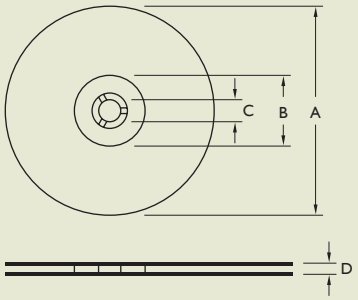
## TAPE DIMENSIONS

Dimensions : mm




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

## REEL DIMENSIONS

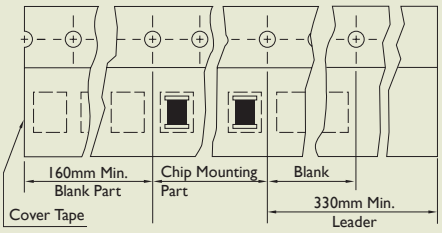



| REEL DIMENSIONS | | | | QUANTITY (PCS/REEL) | |
|---|---|---|---|---|---|
| A | B | C | D | 178MM | 330MM |
| 330 | 100 | 13 | 13.4 | - | 3500 |
| 178 | 60 | 13 | 13.2 | 1000 | - |

## TAPE MATERIAL

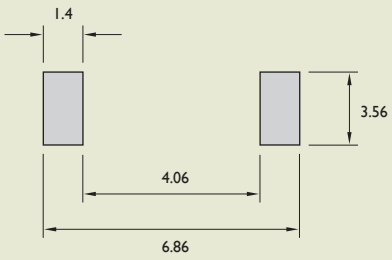
Carrier Tape : Polystyrene

Cover Type : Polyethylene



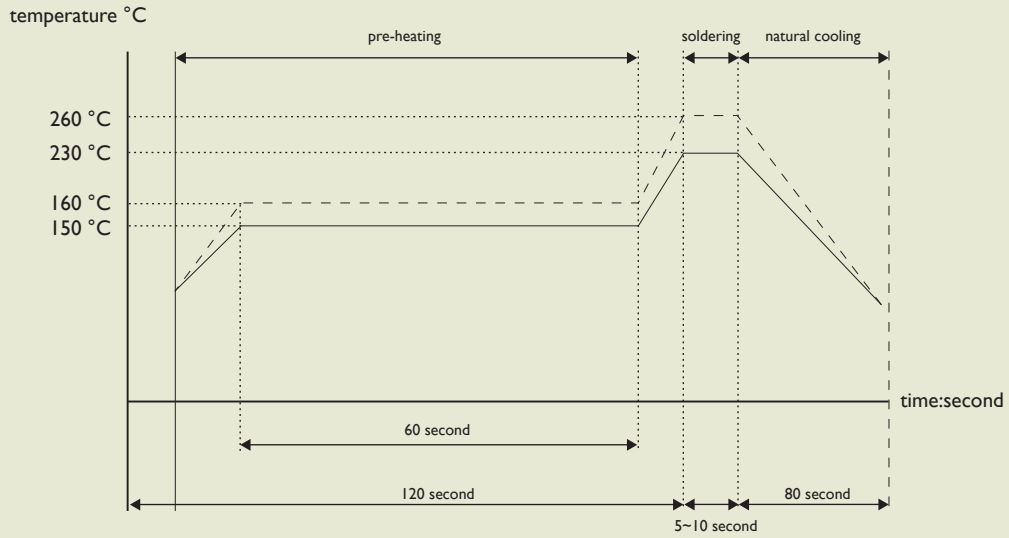

## RECOMMENDED PATTERN

**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

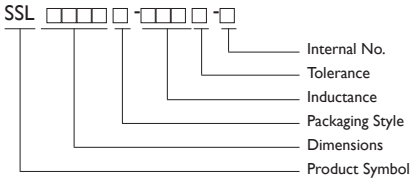
DC-DC Conversion


## FEATURES

High energy storage and very low resistance.

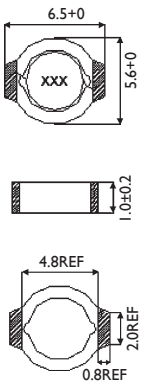
Smallest size and high performance

## PRODUCT IDENTIFICATION




- Packaging: T : Tape and Reel, B : Bulk
- Tolerance: M: ±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 (µH ) * | TOLERANCE (±%) | DC RESISTANCE ($\Omega^{+0}$)max | Isat ** (A) | Irms *** (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.

*** ΔT=30°C rise typ at Irms

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| TYPE | Inductance(μH) | Test Freq(KHz) | RDC(Ω)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

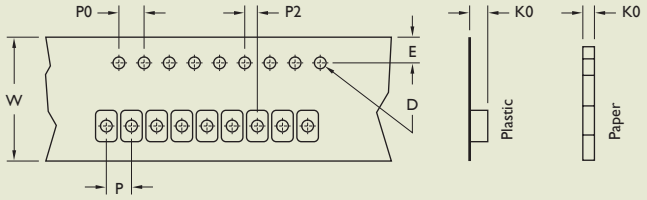
2.Inductance drop = 10% typ. at Isat

3.ΔT=40°C rise typ at Irms.

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

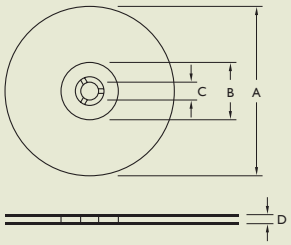
## TAPE DIMENSIONS

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

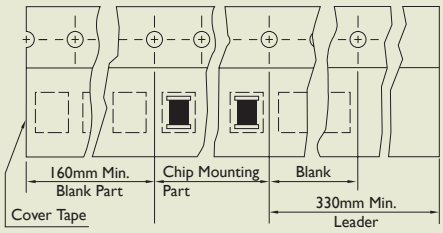



| REEL DIMENSIONS | | | | QUANTITY (PCS/REEL) | |
|---|---|---|---|---|---|
| A | B | C | D | 178MM | 330MM |
| 330 | 100 | 13 | 13.4 | - | 3500 |
| 178 | 60 | 13 | 13.2 | 1000 | - |

## TAPE MATERIAL

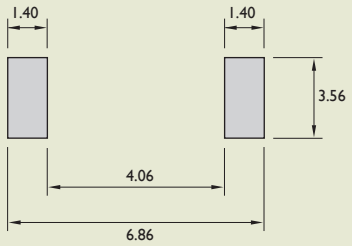
Carrier Tape : Polystyrene

Cover Type : Polyethylene



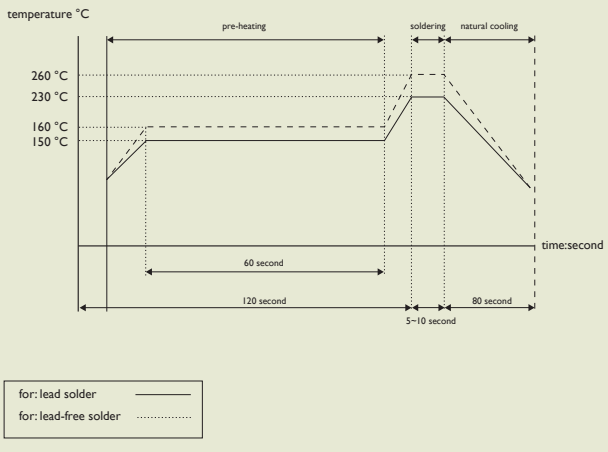

## RECOMMENDED PATTERN

**Land Pattern**




## RECOMMEND SOLDERING CONDITIONS

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



# SSL0402 Series

## SMD Power Inductors

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 (µH ± 20%) * | SRF (MHz) | DC RESISTANCE (Ω*0) | Isat ** (A) | Irms *** (A) |
|---|---|---|---|---|---|
| SSL0402T-1R0M-S | 1.0 | 130 | 0.05 | 2.90 | 2.9 |
| SSL0402T-1R5M-S | 1.5 | 115 | 0.05 | 2.60 | 2.8 |
| SSL0402T-2R2M-S | 2.2 | 90 | 0.07 | 2.30 | 2.4 |
| SSL0402T-3R3M-S | 3.3 | 70 | 0.08 | 2.00 | 2.0 |
| SSL0402T-4R7M-S | 4.7 | 50 | 0.09 | 1.50 | 1.5 |
| SSL0402T-6R8M-S | 6.8 | 45 | 0.13 | 1.20 | 1.4 |
| SSL0402T-100M-S | 10 | 35 | 0.16 | 1.10 | 1.1 |
| SSL0402T-150M-S | 15 | 30 | 0.23 | 0.90 | 1.2 |
| SSL0402T-220M-S | 22 | 20 | 0.37 | 0.70 | 0.8 |
| SSL0402T-330M-S | 33 | 15 | 0.51 | 0.58 | 0.6 |
| SSL0402T-470M-S | 47 | 14 | 0.64 | 0.50 | 0.5 |
| SSL0402T-680M-S | 68 | 11 | 0.86 | 0.40 | 0.4 |
| SSL0402T-101M-S | 100 | 9 | 1.27 | 0.31 | 0.3 |
| SSL0402T-151M-S | 150 | 6 | 2.00 | 0.27 | 0.25 |
| SSL0402T-221M-S | 220 | 5.5 | 3.11 | 0.22 | 0.20 |
| SSL0402T-331M-S | 330 | 5 | 3.80 | 0.18 | 0.16 |
| SSL0402T-471M-S | 470 | 4 | 5.06 | 0.16 | 0.15 |
| SSL0402T-681M-S | 680 | 3 | 9.20 | 0.14 | 0.12 |
| SSL0401T-102M-S | 1000 | 2 | 13.8 | 0.10 | 0.07 |

* Inductance Tested at 0.1 Vrms, 100 KHz

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

*** ΔT = 30°C Rise Typ at Irms.

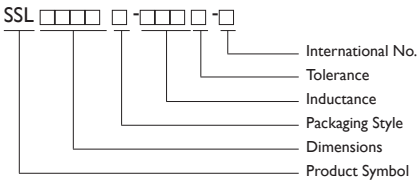
Operating Temperature Range -40°C to +85°C

## FEATURES

High energy storage and very low resistance.

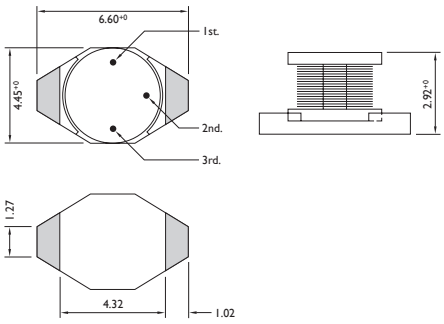
Smallest size and high performance

## PRODUCT IDENTIFICATION




- Packaging: T : Tape and Reel
- Tolerance: M: ±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 (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Isat (A) | Irms (A) | SRF (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

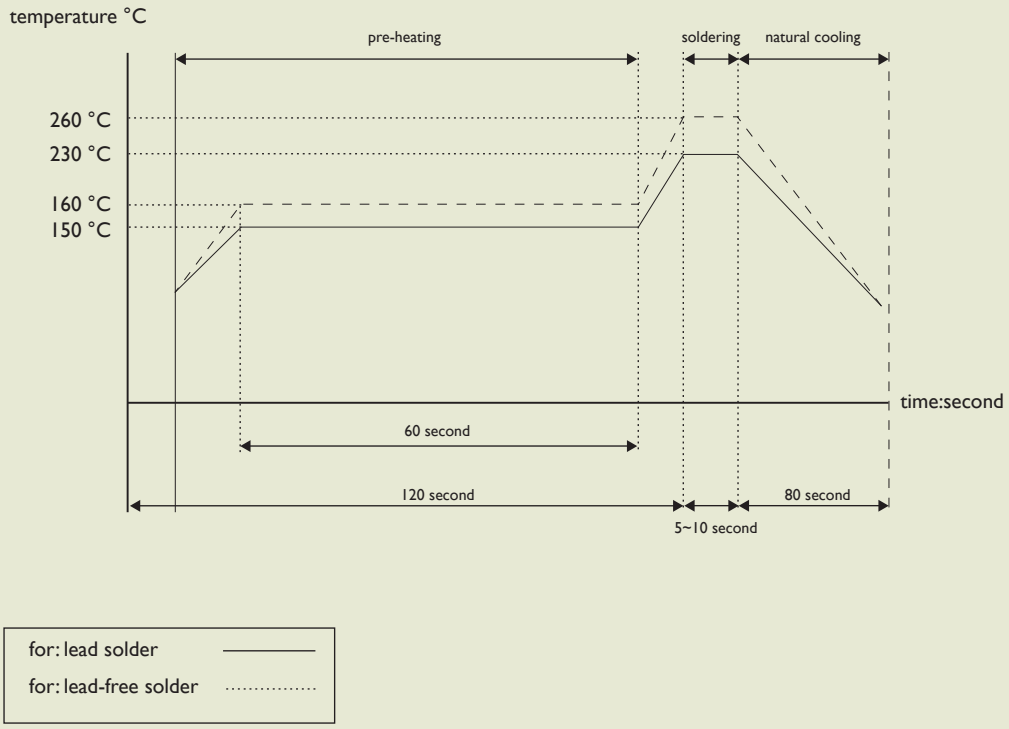
2.Inductance drop 20% typ. at last

4. ΔT=30°C rise typ.at 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

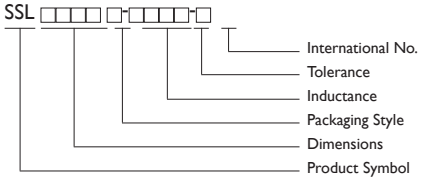
# SSL0802 Series

## FEATURES

High energy storage and very low resistance.

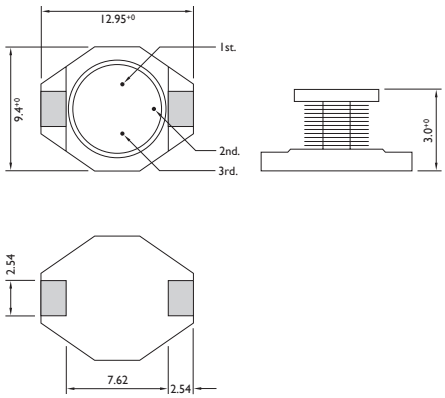
Smallest size and high performance

## PRODUCT IDENTIFICATION




- Packaging: T : Tape and Reel
- Tolerance: M: ±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 (µH ± 20%) * | SRF (MHz) | DC RESISTANCE ($\Omega^{+0}$) | Isat ** (A) | Irms *** (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.

*** ΔT = 30°C Rise Typ at Irms.

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Isat (A) | Irms (A) | SRF (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 Irms.

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

SMD Power Inductors

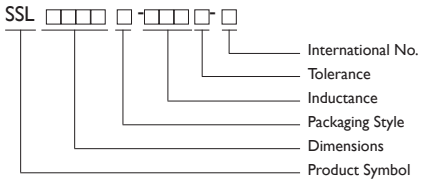
# SSL0804 Series

## FEATURES

High energy storage and very low resistance.

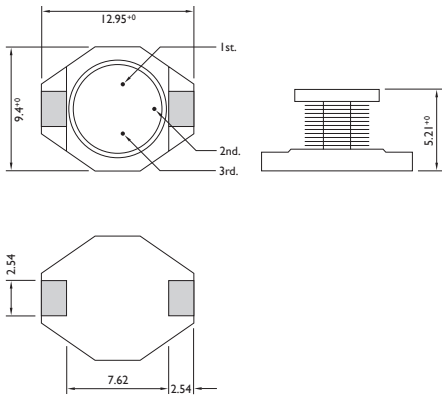
Smallest size and high performance

## PRODUCT IDENTIFICATION




- Packaging: T : Tape and Reel
- Tolerance: M: ±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 (µH ± 20%) * | SRF (MHz) | DC RESISTANCE (Ω+0) ±15% | Isat ** (A) | Irms *** (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.

*** ΔT = 15°C Rise Typ at Irms.

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Isat (A) | Irms (A) | SRF (KHz)Typ. | COLOR CODE 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

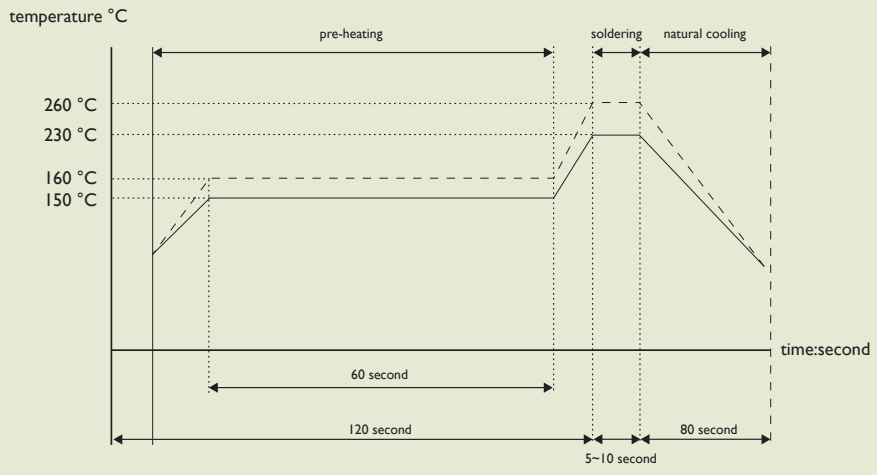
2.Inductance drop 20% typ. at last

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




for: lead solder

for: lead-free solder

SMD Power Inductors

# SSL0810 Series

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.

## FEATURES

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

## APPLICATIONS

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

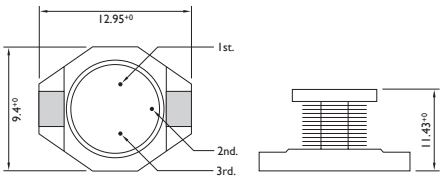
## PRODUCT IDENTIFICATION

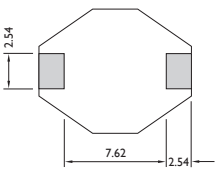
SSL □□□□ □ -□□□ □ -□

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

- Packaging: T : Tape and Reel
- Tolerance: M: ±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

| PART NO. | INDUCTANCE (µH ± 20%) * | SRF (MHz) | DC RESISTANCE (Ω+0) | Isat ** (A) | Irms *** (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.

*** ΔT = 40°C Rise Typ at Irms.

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TEST FREQUENCY (MHZ) | Rdc Max | Isat (A) | Irms (A) | SRF (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

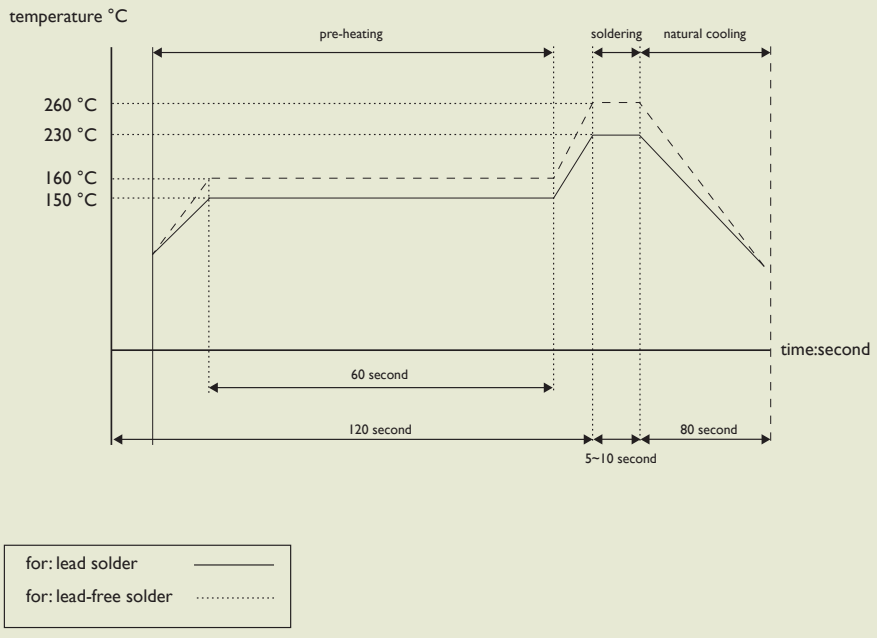
2.Inductance drop 20% typ. at last

4. ΔT=40°C rise typ.at 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

# SSL1306 Series

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.

## FEATURES

High energy storage and very low resistance.

Smallest size and high performance

## APPLICATIONS

Notebook computers, Sep-up and step-down converters

Flash, memory programmers. Etc...

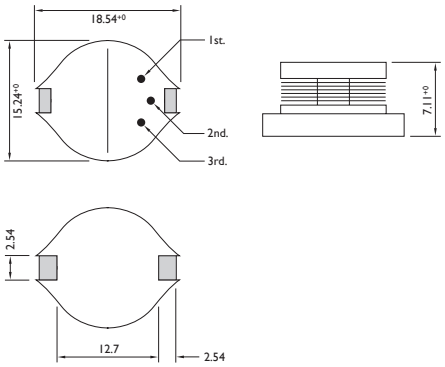
## PRODUCT IDENTIFICATION

SSL □□□□ □ -□□□ □ -□

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

- Packaging: T : Tape and Reel
- Tolerance: M: ±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

| PART NO. | INDUCTANCE (µH ± 20%) * | SRF (MHz) | DC RESISTANCE (Ω+0) | Isat ** (A) | Irms *** (A) |
|---|---|---|---|---|---|
| SSL1306T-1R0M-S | 1.0 | 80 | 0.011 | 20 | 8.6 |
| SSL1306T-2R2M-S | 2.2 | 80 | 0.014 | 16 | 7.1 |
| SSL1306T-3R3M-S | 3.3 | 60 | 0.016 | 14 | 6.2 |
| SSL1306T-5R6M-S | 5.6 | 40 | 0.022 | 12 | 5.3 |
| SSL1306T-100M-S | 10 | 30 | 0.032 | 10 | 4.3 |
| SSL1306T-150M-S | 15 | 22 | 0.036 | 8.0 | 4.0 |
| SSL1306T-220M-S | 22 | 20 | 0.047 | 7.0 | 3.5 |
| SSL1306T-330M-S | 33 | 15 | 0.066 | 5.5 | 3.0 |
| SSL1306T-470M-S | 47 | 9 | 0.087 | 4.5 | 2.6 |
| SSL1306T-680M-S | 68 | 8 | 0.13 | 3.5 | 2.3 |
| SSL1306T-101M-S | 100 | 7 | 0.19 | 3.0 | 1.8 |
| SSL1306T-151M-S | 150 | 6 | 0.25 | 2.6 | 1.5 |
| SSL1306T-221M-S | 220 | 5 | 0.38 | 2.4 | 1.2 |
| SSL1306T-331M-S | 330 | 4 | 0.56 | 1.9 | 1.0 |
| SSL1306T-471M-S | 470 | 3 | 0.85 | 1.4 | 0.82 |
| SSL1306T-681M-S | 680 | 2.5 | 1.2 | 1.2 | 0.72 |
| SSL1306T-102M-S | 1000 | 2 | 1.8 | 1.0 | 0.56 |

* Inductance Tested at 0.1 Vrms, 100 KHz

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

*** ΔT = 40°C Rise Typ at Irms.

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TEST FREQUENCY (MHZ) | Rdc (Ω) | Isat (A) | Irms (A) | SRF (KHz)Typ. |
|---|---|---|---|---|---|---|
| SSL1306T-1R0 □ -N | 1 | 100KHz,0.1V | 0.011+15% | 20 | 8.6 | 80 |
| SSL1306T-2R2 □ -N | 2.2 | 100KHz,0.1V | 0.014+15% | 16 | 7.1 | 80 |
| SSL1306T-3R3 □ -N | 3.3 | 100KHz,0.1V | 0.016+15% | 14 | 6.2 | 60 |
| SSL1306T-5R6 □ -N | 5.6 | 100KHz,0.1V | 0.022+15% | 12 | 5.3 | 40 |
| SSL1306T-100 □ -N | 10 | 100KHz,0.1V | 0.032+15% | 10 | 4.3 | 30 |
| SSL1306T-150 □ -N | 15 | 100KHz,0.1V | 0.036+15% | 8 | 4 | 22 |
| SSL1306T-220 □ -N | 22 | 100KHz,0.1V | 0.047+15% | 7 | 3.5 | 20 |
| SSL1306T-330 □ -N | 33 | 100KHz,0.1V | 0.066+15% | 5.5 | 3 | 15 |
| SSL1306T-470 □ -N | 47 | 100KHz,0.1V | 0.087+15% | 4.5 | 2.6 | 9 |
| SSL1306T-680 □ -N | 68 | 100KHz,0.1V | 0.13+15% | 3.5 | 2.3 | 8 |
| SSL1306T-101 □ -N | 100 | 100KHz,0.1V | 0.19+15% | 3 | 1.8 | 7 |
| SSL1306T-151 □ -N | 150 | 100KHz,0.1V | 0.25+15% | 2.6 | 1.5 | 6 |
| SSL1306T-221 □ -N | 220 | 100KHz,0.1V | 0.38+15% | 2.4 | 1.2 | 5 |
| SSL1306T-331 □ -N | 330 | 100KHz,0.1V | 0.56+15% | 1.9 | 1 | 4 |
| SSL1306T-471 □ -N | 470 | 100KHz,0.1V | 0.85+15% | 1.4 | 0.82 | 3 |
| SSL1306T-681 □ -N | 680 | 100KHz,0.1V | 1.2+15% | 1.2 | 0.72 | 2.5 |
| SSL1306T-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

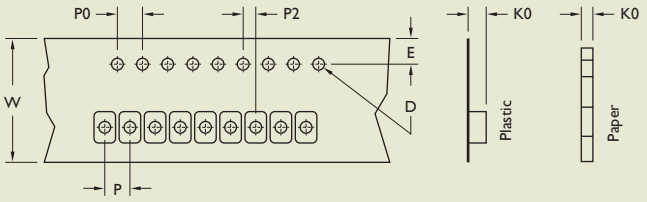
2.Inductance drop 20% typ. at last

4. ΔT=40°C rise typ.at Irms.

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

## TAPE DIMENSIONS

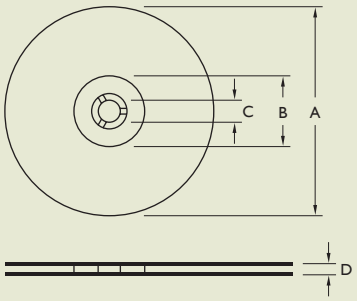
Dimensions : mm




| TYPE | TAPE DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|
| | K0 | D | E | W | P | P0 | P2 |
| 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

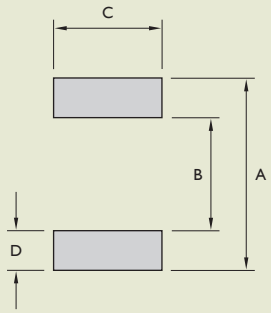



| TYPE | REEL DIMENSIONS | | | | QUANTITY /REEL | |
|---|---|---|---|---|---|---|
| | A | B | C | D | 178 | 330 |
| SSL0402 | 330 | 100 | 13 | 13.4 | - | 2500 |
| | 178 | 60 | | 13.2 | 750 | - |
| SSL0802 | 330 | 100 | 13 | 24.4 | - | 1000 |
| SSL0804 | 330 | 100 | 13 | 24.4 | - | 750 |
| SSL0810 | 330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

## RECOMMENDED PATTERN

Dimensions : mm

Land Pattern

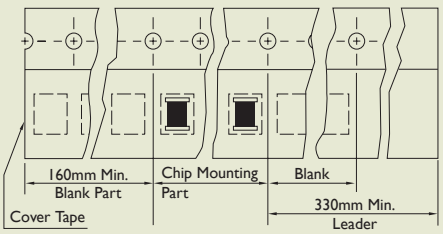



| RECOMMENDED PATTERN | | | | |
|---|---|---|---|---|
| | A | B | C | D |
| SSL0402 | 6.86 | 4.06 | 3.58 | 1.40 |
| SSL0802 | 13.21 | 7.37 | 2.79 | 2.92 |
| SSL0804 | 13.21 | 7.37 | 2.79 | 2.92 |
| SSL0810 | 13.21 | 7.37 | 2.79 | 2.92 |
| SSL1306 | 18.29 | 12.45 | 2.79 | 2.92 |

## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene



## SSL SERIES RELIABILITY TEST

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | 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. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

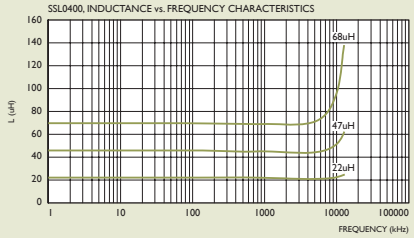
| | | |
|---|---|---|
| | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | High Temperature 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. |
| 1-2-5 | Low Temperature Resistance | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |

## TYPICAL ELECTRICAL CHARACTERISTICS

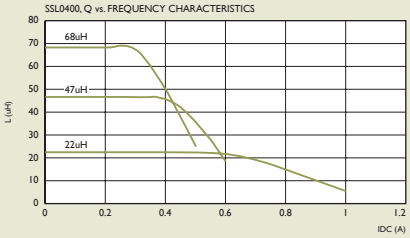
Curves of SSL Series

Test Instruments :

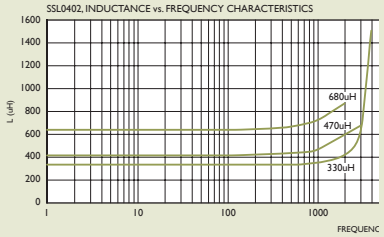
SSL0400, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



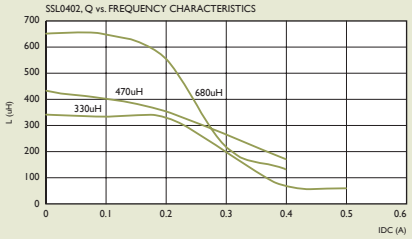

SSL0400, Q vs. FREQUENCY CHARACTERISTICS



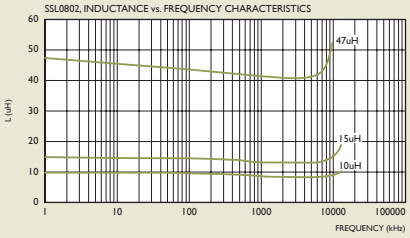

SSL0402, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



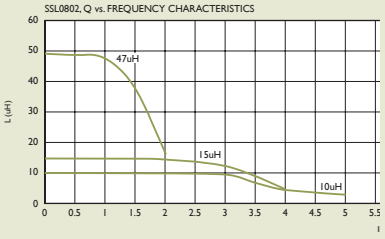

SSL0402, Q vs. FREQUENCY CHARACTERISTICS



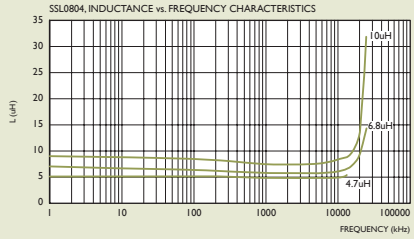

SSL0802, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



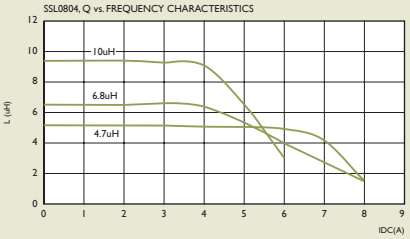

SSL0802, Q vs. FREQUENCY CHARACTERISTICS



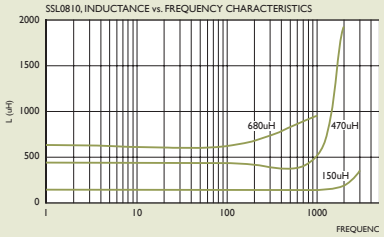

SSL0804, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



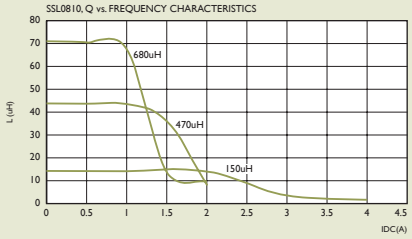

SSL0804, Q vs. FREQUENCY CHARACTERISTICS



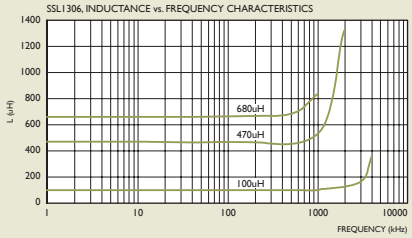

SSL0810, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



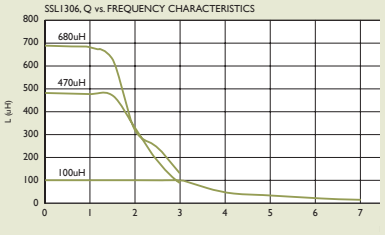

SSL0810, Q vs. FREQUENCY CHARACTERISTICS




SSL1306, INDUCTANCE vs. FREQUENCY CHARACTERISTICS

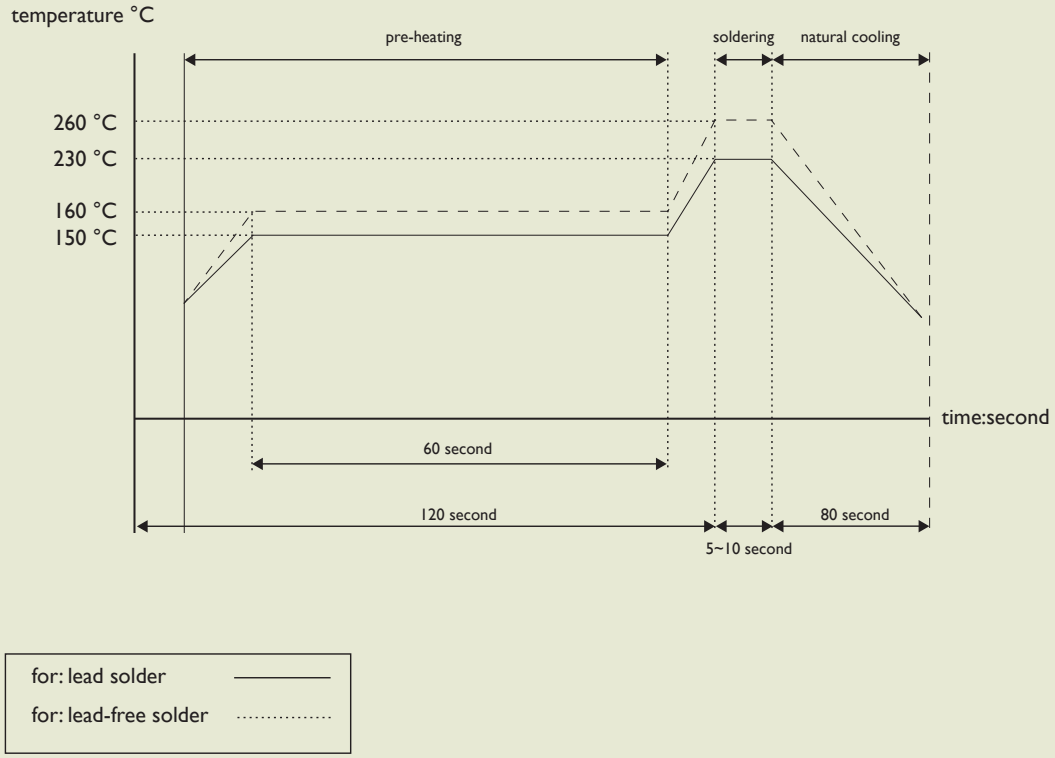



SSL1306, Q vs. FREQUENCY CHARACTERISTICS



## RECOMMEND SOLDERING CONDITIONS

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



SMD Power Inductors

# SSL0503HC Series

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 .33µH 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.

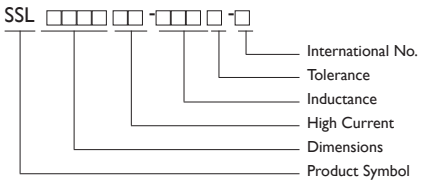
## FEATURES

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

## APPLICATIONS

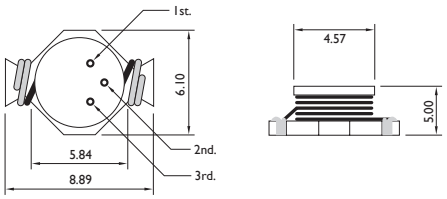
Notebook computers, Sep-up and step-down converters, memory programmers. etc...

## PRODUCT IDENTIFICATION




• Packaging: T: Tape and Reel, B : Bulk
• Tolerance: M: ±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

## ELECTRICAL CHARACTERISTICS

| PART NO. | INDUCTANCE (µH ± 20%) * | SRF ** (MHz) | DC RESISTANCE (Ω) Max. | Isat *** (A) | Irms **** (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.
**** ΔT = 40°C Typ at Irms.
Operating Temperature Range -40°C to +85°C
Electrical Specifications at 25°C

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | Rdc (Ω) | Isat (A) | Irms (A) | SRF (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

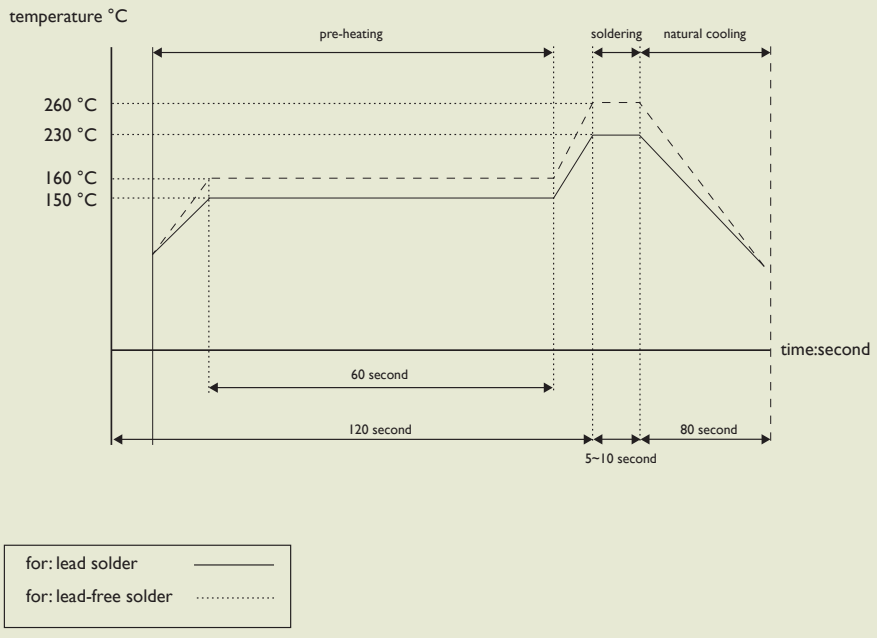
2.Inductance drop 30% typ. at last

4. ΔT=40°C rise typ.at 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



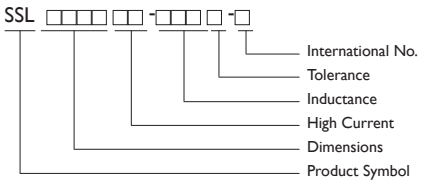
SMD Power Inductors

# SSL0804HC Series

## FEATURES

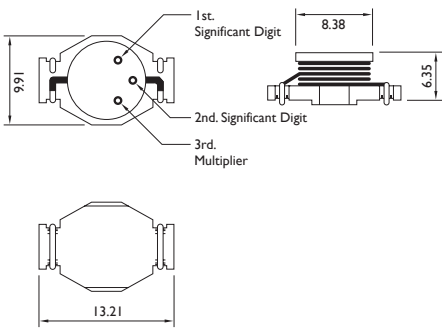
For high current, low voltage DC-DC converter applications.

## PRODUCT IDENTIFICATION




- Packaging: T: Tape and Reel, B:Bulk
- Tolerance: M: ±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 .33µH 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 (µH ± 20%) * | SRF ** (MHz) | DC RESISTANCE (Ω) Max. | Isat *** (A) | Irms **** (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.

**** ΔT = 40°C Typ at Irms.

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

Electrical Specifications at 25°C

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | Rdc (Ω) | Isat (A) | Irms (A) | SRF (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

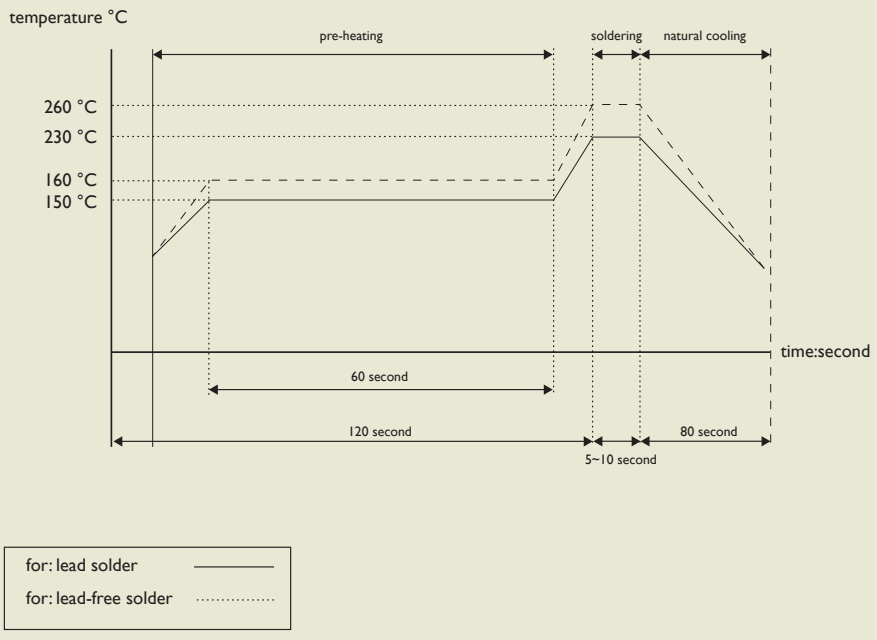
2.Inductance drop 10% typ. at last

4. ΔT=40°C rise typ.at 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

# SSL1306HC Series

## FEATURES

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

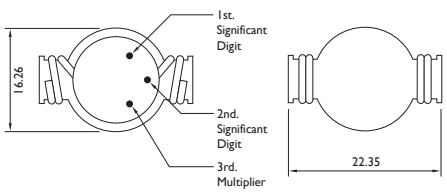
## PRODUCT IDENTIFICATION

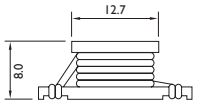
SSL □□□□ □□ -□□□ □ -□

- International No.
- Tolerance
- Inductance
- High Current
- Dimensions
- Product Symbol

- Packaging: T: Tape and Reel, B:Bulk
- Tolerance: M: ±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 .33µH 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 (µH ± 20%) * | SRF (MHz) | DC RESISTANCE (Ω) Max. | Isat ** (A) | Irms *** (A) |
|---|---|---|---|---|---|
| SSL1306HC-R78M-S | 0.78 | 156 | 2.6 | 30 | 15 |
| SSL1306HC-1R5M-S | 1.5 | 100 | 4.0 | 25 | 15 |
| SSL1306HC-2R2M-S | 2.2 | 75 | 6.1 | 20 | 12 |
| SSL1306HC-3R3M-S | 3.3 | 60 | 8.6 | 17 | 10 |
| SSL1306HC-3R9M-S | 3.9 | 55 | 10 | 15 | 9.0 |
| SSL1306HC-4R7M-S | 4.7 | 40 | 14 | 13 | 8.4 |
| SSL1306HC-6R0M-S | 6.0 | 35 | 17 | 12 | 7.5 |
| SSL1306HC-7R8M-S | 7.8 | 35 | 18 | 11 | 7.5 |
| SSL1306HC-100M-S | 10 | 28 | 26 | 10 | 6.0 |
| SSL1306HC-150M-S | 15 | 20 | 32 | 8 | 4.4 |

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

** Isat : Inductance Drop = 10% Typ.

*** ΔT = 40°C Typ at Irms.

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

## ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | Rdc (Ω) | Isat (A) | Irms (A) | SRF (KHz)Typ. |
|---|---|---|---|---|---|---|
| SSL1306HC-R78 □ -N | 0.78 | 20 | 0.0026+0 | 30TYP. | 15 | 156 |
| SSL1306HC-1R5 □ -N | 1.5 | 20 | 0.0040+0 | 25TYP. | 15 | 100 |
| SSL1306HC-2R2 □ -N | 2.2 | 20 | 0.0061+0 | 20TYP. | 12 | 75 |
| SSL1306HC-3R3 □ -N | 3.3 | 20 | 0.0086+0 | 17TYP. | 10 | 60 |
| SSL1306HC-3R9 □ -N | 3.9 | 20 | 0.0100+0 | 15TYP. | 9 | 55 |
| SSL1306HC-4R7 □ -N | 4.7 | 20 | 0.0140+0 | 13TYP. | 8.4 | 40 |
| SSL1306HC-6R0 □ -N | 6 | 20 | 0.0170+0 | 12TYP. | 7.5 | 35 |
| SSL1306HC-7R8 □ -N | 7.8 | 20 | 0.0180+0 | 11TYP. | 7.5 | 35 |
| SSL1306HC-100 □ -N | 10 | 20 | 0.0260+0 | 10TYP. | 6 | 28 |
| SSL1306HC-150 □ -N | 15 | 20 | 0.0320+0 | 8TYP. | 4.4 | 20 |

NOTE : □ -tolerance M=±20% / T=±30%

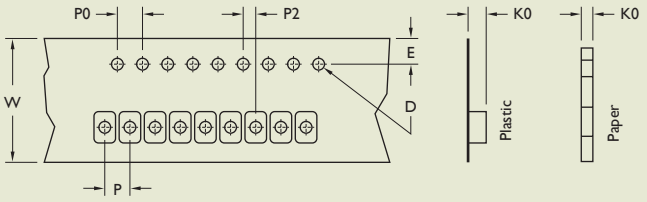
1.Operating temperature range -40°C~85°C

2.Inductance drop 10% typ. at last

3. ΔT=40°C rise typ.at Irms.

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

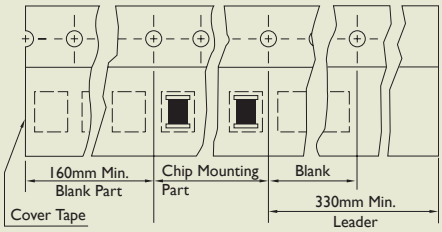
## TAPE DIMENSIONS



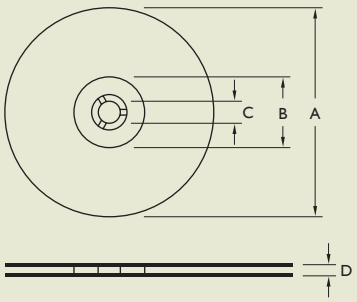

## TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene

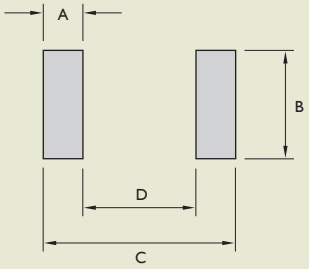



## REEL DIMENSIONS




## 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

1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

**1-2 ENVIRONMENTAL PERFORMANCE**

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | 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. |
| 1-2-2 | Temperature Cycle | | One Cycle |

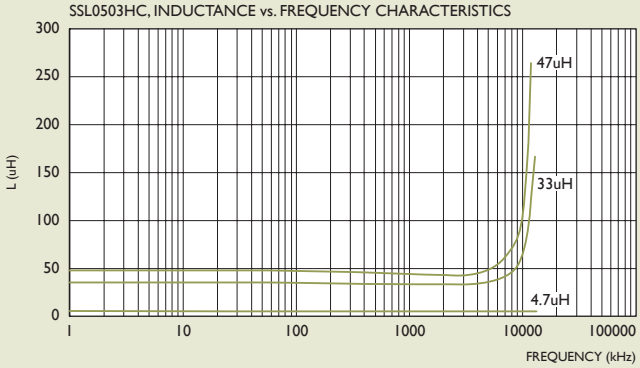
| Step | Temperature (ΔC) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | | |
|---|---|---|
| | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | Low Temperature Resistance | Temperature : -25 ± 3°C<br>Relative Humidity : 0%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |

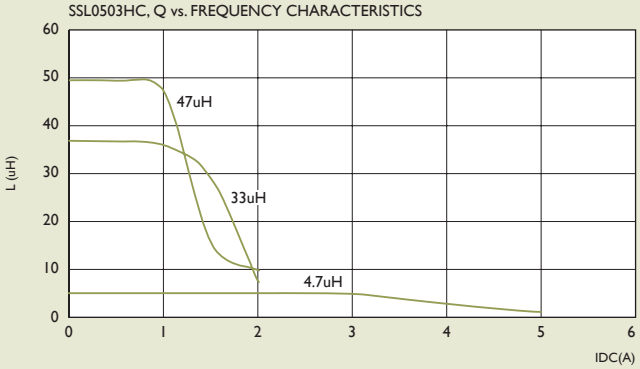
## TYPICAL ELECTRICAL CHARACTERISTICS

Curves of SSL Series

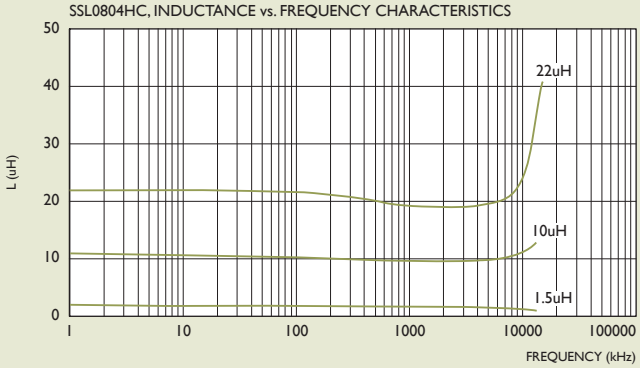
SSL0503HC, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



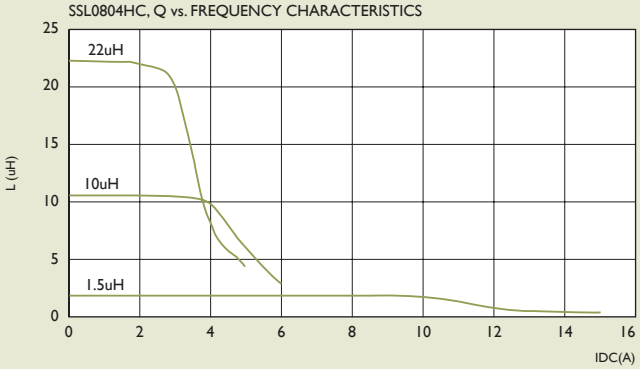

SSL0503HC, Q vs. FREQUENCY CHARACTERISTICS



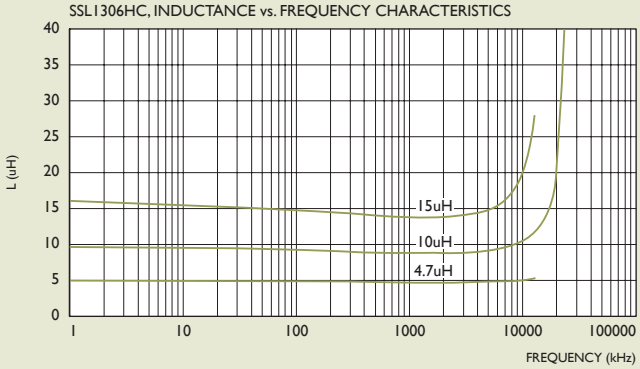

SSL0804HC, INDUCTANCE vs. FREQUENCY CHARACTERISTICS



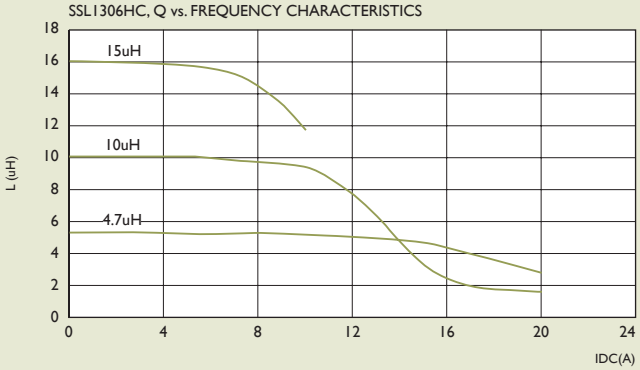

SSL0804HC, Q vs. FREQUENCY CHARACTERISTICS




SSL1306HC, INDUCTANCE vs. FREQUENCY CHARACTERISTICS

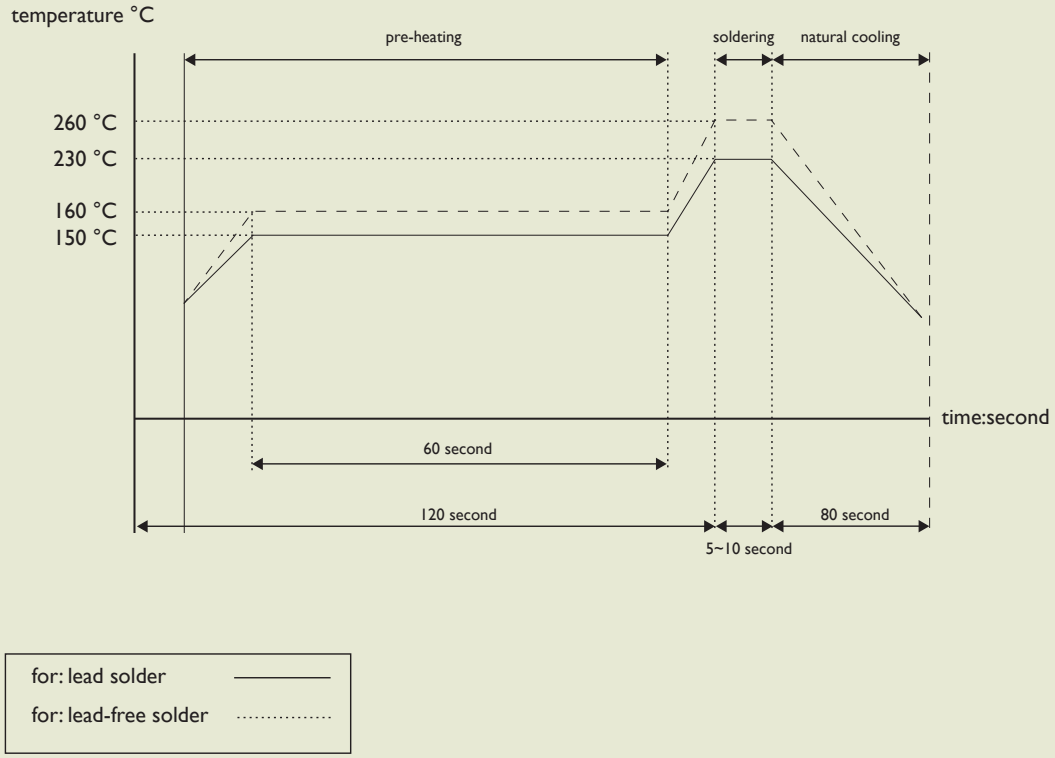



SSL1306HC, Q vs. FREQUENCY CHARACTERISTICS



## RECOMMEND SOLDERING CONDITIONS

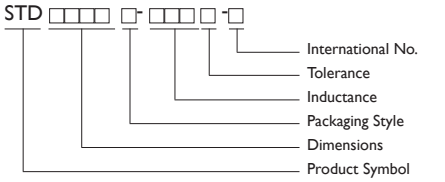
for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



SMD Power Inductors

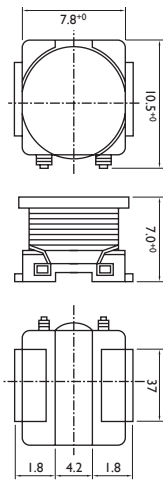
# STD0804 Series

## 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.

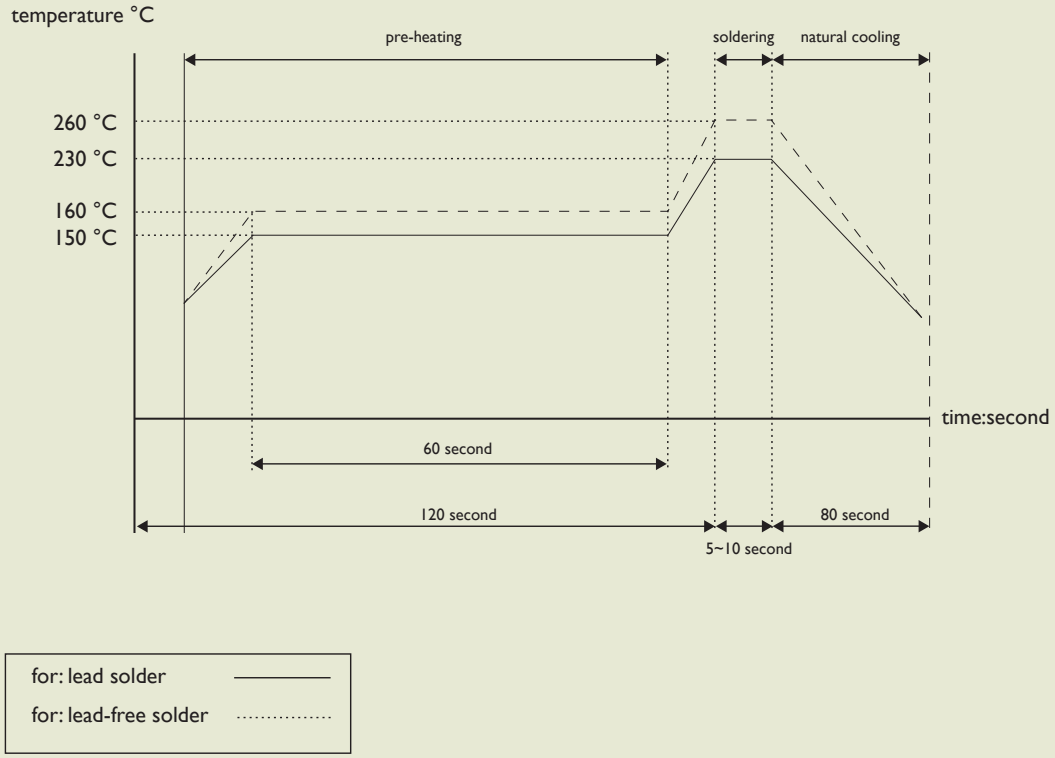
## ELECTRICAL CHARACTERISTICS

| PART NO. | INDUCTANCE * (μH ± 10%) | DC RESISTANCE ($\Omega^{+0}$) | RATED CURRENT (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



SMD Power Inductors

# STD1109 Series

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.

## FEATURES

Power supply, power amplifiers

Switching regulators.

## APPLICATIONS

For high current applications.

Specially designed for high density surface applications.

Ideal for solder flow, reflow and wave soldering applications.

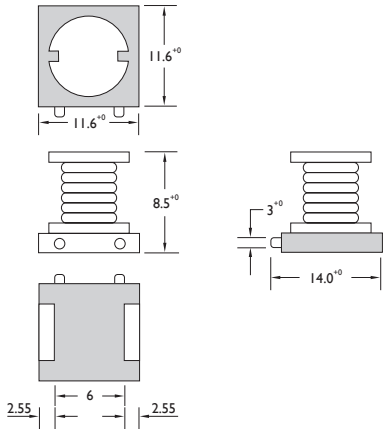
## PRODUCT IDENTIFICATION

STD □□□□ □ -□□□□ □ -□

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

- 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




Dimensions : mm

## ELECTRICAL CHARACTERISTICS

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

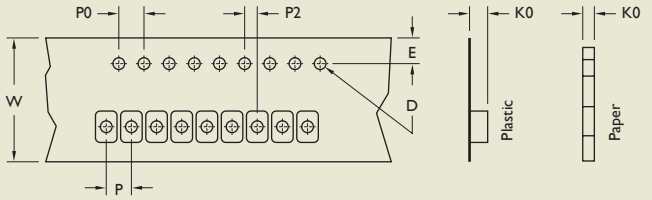
NOTE : □ -tolerance M=±20% / T=±30%

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

3.Inductance drop =10% typ.

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

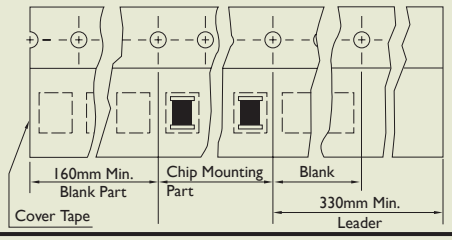
## TAPE DIMENSIONS



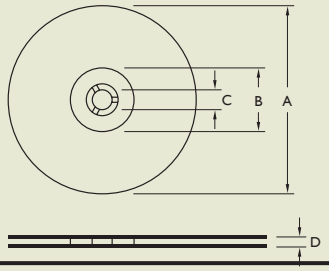

## TAPE MATERIAL

Carrier Tape : Polystyrene

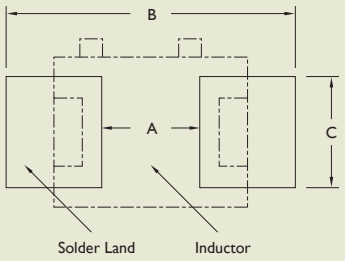
Cover Type : Polyethylene




## REEL DIMENSIONS




## RECOMMENDED PATTERN

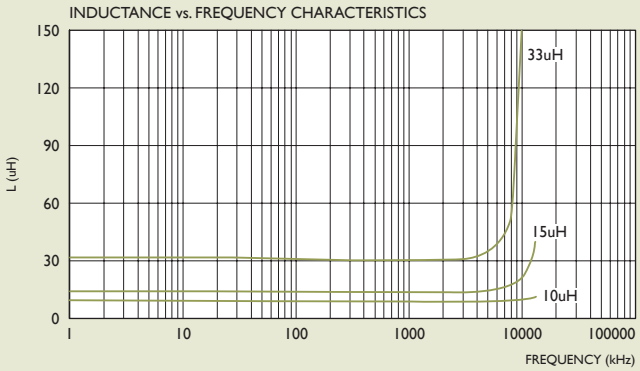


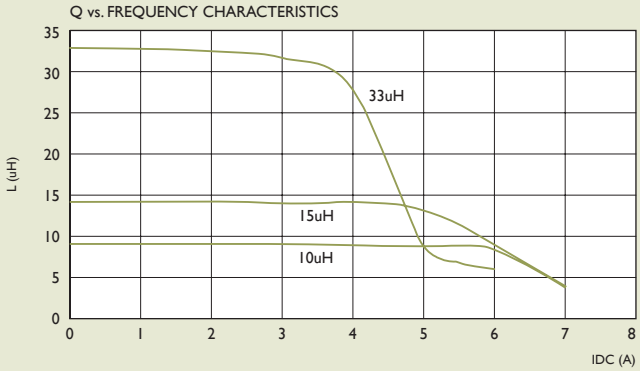

Dimensions : mm

| TYPE | TAPE DIMENSIONS | | | | | | | RECOMMENDED PATTERN | | | REEL DIMENSIONS | | | | QUANTITY /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 |

## TYPICAL INDUCTANCE ENERGY STORAGE VS. CURRENT

Test instruments : HP4191A RF Impedance Analyzer



## STD SERIES RELIABILITY TEST

### 1-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-1-1 | Vibration | Appearance : No Damage<br>L Change : within ±10%<br>Q Change : within ±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. |
| 1-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min.<br>Solder Composition : Sn/Pb = 63/37<br>Solder Temperature : 260 ± 5°C<br>Immersion Time : 10 ± 1Sec. |
| 1-1-3 | 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 ± 5°C<br>Immersion Time : 4 ± 1Sec. |

### 1-2 ENVIRONMENTAL PERFORMANCE

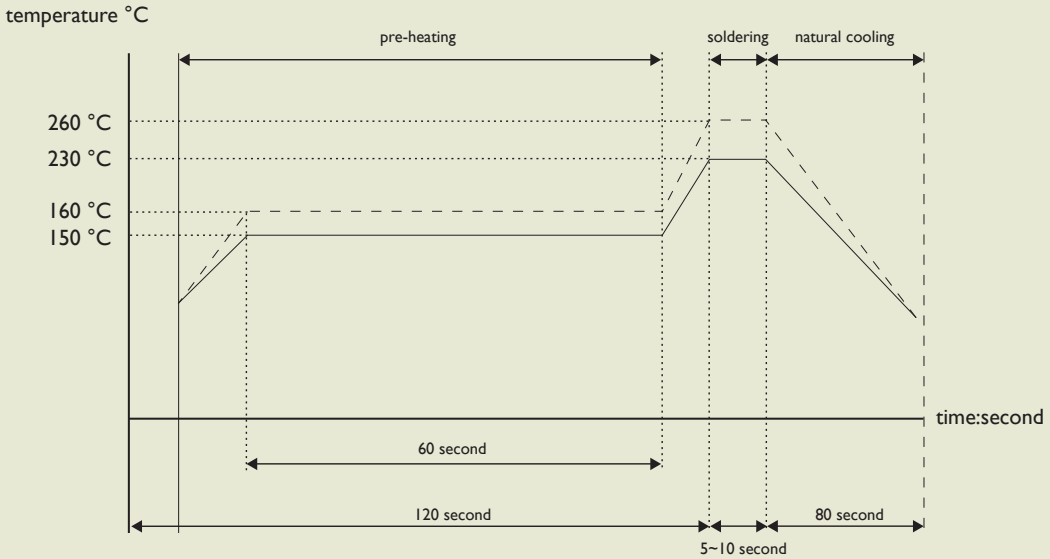
| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|---|---|---|---|
| 1-2-1 | Temperature Shock | Appearance : No Damage<br>L Change : within ±10%<br>L Change : within ±30%<br>RDC : within Specification | 10 Cycles (Air to Air) 1 Cycles shall Consist of :<br>30Min. Exposure to -55°C<br>30Min. Exposure to 125°C<br>15Sec. Max. Transition between Temperatures<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-2 | Temperature Cycle | | One Cycle |

| Step | Temperature (°C) | Time (Min.) |
|---|---|---|
| 1 | -25 ± 3 | 30 |
| 2 | 25 ± 2 | 3 |
| 3 | 85 ± 3 | 30 |
| 4 | 25 ± 2 | 3 |

| | | |
|---|---|---|
| | | Total : 100 Cycles<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-3 | Humidity Resistance | Temperature : 40 ± 2°C<br>Relative Humidity : 90 ~ 95%<br>Time : 1000Hrs.<br>Measured after Exposure in the Room Condition for 24Hrs. |
| 1-2-4 | 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. |
| 1-2-5 | 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 ·····