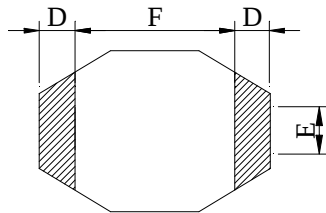
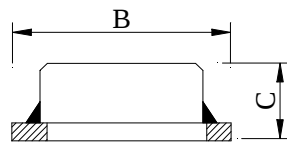
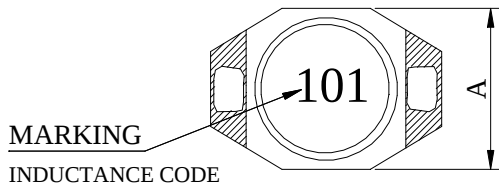


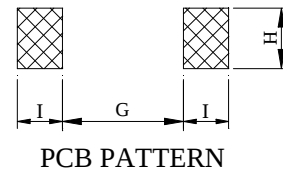
# PRODUCT SPECIFICATION

|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 1608 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 1 |
| TAMURA Part No. | TS1608-XXX                               | Rev. No. | 0 |

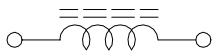
## 1. CONFIGURATION & DIMENSIONS :



|   |             |     |
|---|-------------|-----|
| A | : 4.45 MAX  | m/m |
| B | : 6.60 MAX  | m/m |
| C | : 2.92 MAX  | m/m |
| D | : 1.02±0.2  | m/m |
| E | : 1.27±0.2  | m/m |
| F | : 4.32±0.3  | m/m |
| G | : 4.06 REF. | m/m |
| H | : 3.56 REF. | m/m |
| I | : 1.40 REF. | m/m |



## 2. SCHEMATIC DIAGRAM :



## 3. GENERAL SPECIFICATION :

- a) TEMP. RISE : 40°C MAX.
- b) RATED CURRENT : BASE ON TEMP. RISE &  $\Delta L / LOA = 10\%$  MAX.
- c) STORAGE TEMP. : -40°C ---- +105°C
- d) OPERATING TEMP. : -25°C ---- +85°C
- e) RESISTANCE TO SOLDER HEAT : 260°C FOR 10 SECS.

# PRODUCT SPECIFICATION

|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 1608 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 2 |
| TAMURA Part No. | TS1608-XXX                               | Rev. No. | 0 |

## 4. ELECTRICAL CHARACTERISTICS :

| TAMURA Part No. | INDUCTANCE<br>( $\mu$ H) | Q<br>MIN. | TEST FREQ. ( HZ ) |      | SRF<br>( MHz )<br>TYP. | RDC<br>( Ohm )<br>MAX | IDC<br>( A )<br>MAX |
|-----------------|--------------------------|-----------|-------------------|------|------------------------|-----------------------|---------------------|
|                 |                          |           | L                 | Q    |                        |                       |                     |
| TS1608-1R0M     | 1.0 $\pm$ 20%            | 30        | 100K              | 200K | 250                    | 0.040                 | 3.0                 |
| TS1608-1R5M     | 1.5 $\pm$ 20%            | 30        | 100K              | 200K | 125                    | 0.045                 | 2.8                 |
| TS1608-2R2M     | 2.2 $\pm$ 20%            | 40        | 100K              | 200K | 120                    | 0.050                 | 1.8                 |
| TS1608-3R3M     | 3.3 $\pm$ 20%            | 40        | 100K              | 200K | 120                    | 0.055                 | 1.6                 |
| TS1608-4R7M     | 4.7 $\pm$ 20%            | 40        | 100K              | 200K | 105                    | 0.060                 | 1.4                 |
| TS1608-6R8M     | 6.8 $\pm$ 20%            | 40        | 100K              | 200K | 50                     | 0.065                 | 1.2                 |
| TS1608-100M     | 10.0 $\pm$ 20%           | 40        | 100K              | 200K | 38                     | 0.075                 | 1.0                 |
| TS1608-150M     | 15.0 $\pm$ 20%           | 40        | 100K              | 100K | 33                     | 0.090                 | 0.80                |
| TS1608-220M     | 22.0 $\pm$ 20%           | 40        | 100K              | 100K | 25                     | 0.110                 | 0.70                |
| TS1608-330M     | 33.0 $\pm$ 20%           | 40        | 100K              | 100K | 20                     | 0.190                 | 0.60                |
| TS1608-470M     | 47.0 $\pm$ 20%           | 40        | 100K              | 100K | 20                     | 0.230                 | 0.50                |
| TS1608-680M     | 68.0 $\pm$ 20%           | 40        | 100K              | 100K | 15                     | 0.290                 | 0.40                |
| TS1608-101M     | 100.0 $\pm$ 20%          | 40        | 100K              | 100K | 10                     | 0.480                 | 0.30                |
| TS1608-151M     | 150.0 $\pm$ 20%          | 40        | 100K              | 100K | 9                      | 0.590                 | 0.26                |
| TS1608-221M     | 220.0 $\pm$ 20%          | 40        | 100K              | 100K | 6                      | 0.770                 | 0.22                |
| TS1608-331M     | 330.0 $\pm$ 20%          | 40        | 100K              | 100K | 5                      | 1.400                 | 0.20                |
| TS1608-471M     | 470.0 $\pm$ 20%          | 40        | 100K              | 100K | 4                      | 1.800                 | 0.19                |
| TS1608-681M     | 680.0 $\pm$ 20%          | 40        | 100K              | 100K | 3                      | 2.200                 | 0.18                |
| TS1608-102M     | 1000.0 $\pm$ 20%         | 40        | 100K              | 100K | 2                      | 3.400                 | 0.15                |
| TS1608-152M     | 1500.0 $\pm$ 20%         | 50        | 100K              | 100K | 2                      | 4.200                 | 0.12                |
| TS1608-222M     | 2200.0 $\pm$ 20%         | 50        | 100K              | 100K | 2                      | 8.500                 | 0.10                |
| TS1608-332M     | 3300.0 $\pm$ 20%         | 50        | 100K              | 100K | 1                      | 11.000                | 0.08                |
| TS1608-472M     | 4700.0 $\pm$ 20%         | 50        | 100K              | 100K | 1                      | 13.900                | 0.06                |
| TS1608-682M     | 6800.0 $\pm$ 20%         | 50        | 100K              | 100K | 1                      | 25.000                | 0.04                |
| TS1608-103M     | 10000.0 $\pm$ 20%        | 50        | 100K              | 100K | 0.8                    | 32.800                | 0.02                |

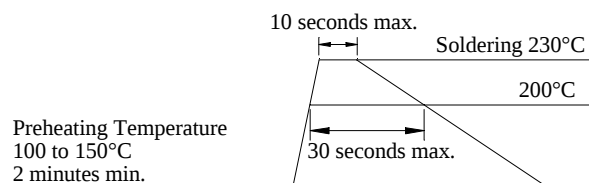


TAMURA

# PRODUCT SPECIFICATION

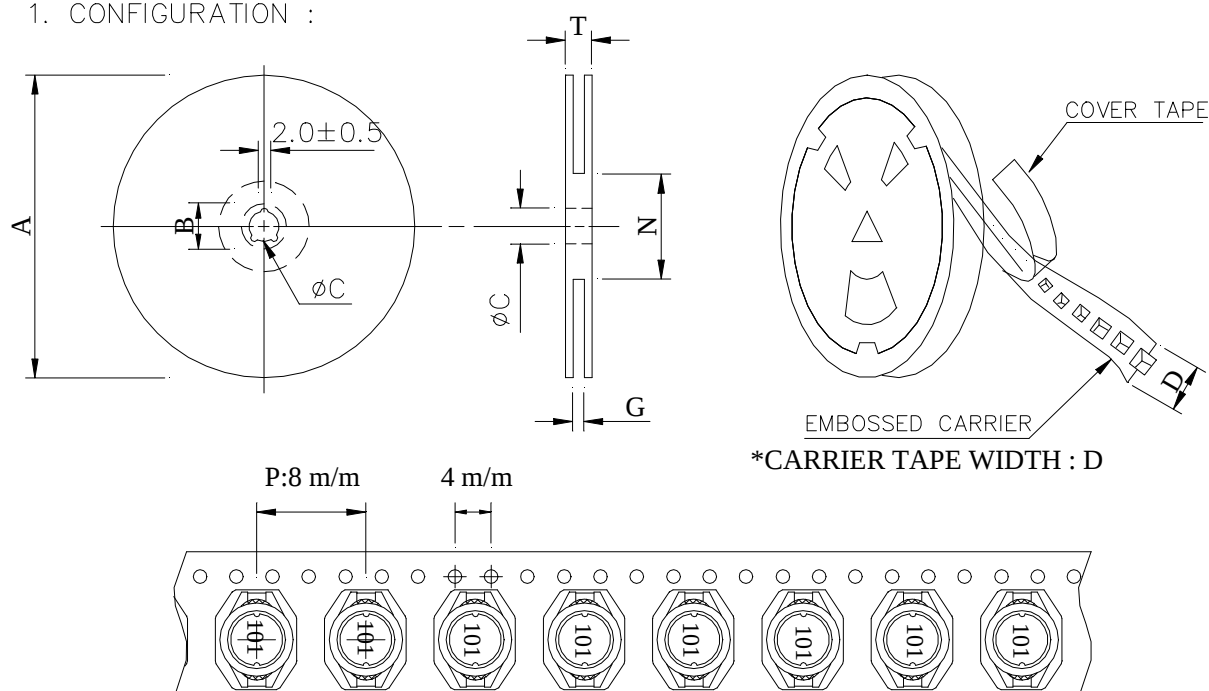
|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 1608 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 3 |
| TAMURA Part No. | TS1608-XXX                               | Rev. No. | 0 |

## RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



## 5. PACKAGING INFORMATION :

### 1. CONFIGURATION :



### ( 2 ) DIMENSIONS

Unit:m/m

| STYLE   | A   | B  | C  | D  | G    | N       | T    |
|---------|-----|----|----|----|------|---------|------|
| 13 - 12 | 330 | 21 | 13 | 12 | 12.4 | 100 MIN | 18.4 |

### ( 3 ) Q'TY & G.W. PER PACKAGE

| SERIES | INNER : REEL |           |         | OUTER : CARTON |           |              |
|--------|--------------|-----------|---------|----------------|-----------|--------------|
|        | Q'TY (PCS)   | G.W. (gw) | STYLE   | Q'TY (PCS)     | G.W. (Kg) | SIZE (cm)    |
| TS1608 | 2,500        | 825       | 13 - 12 | 30,000         | 10.5      | 40 x 20 x 26 |

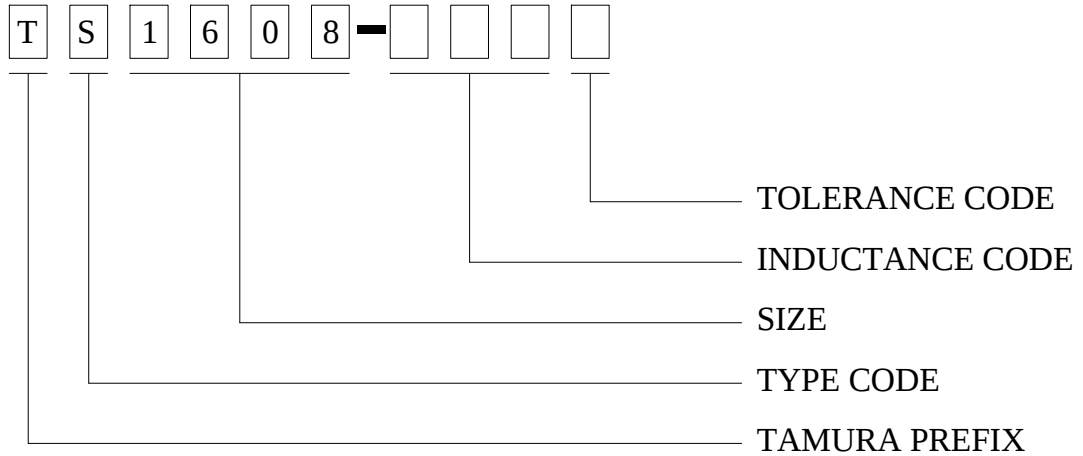


TAMURA

# PRODUCT SPECIFICATION

|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 1608 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 4 |
| TAMURA Part No. | TS1608-XXX                               | Rev. No. | 0 |

## 6. Part No. FORMAT :



TAMURA

# PRODUCT SPECIFICATION

|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 1608 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 5 |
| TAMURA Part No. | TS1608-XXX                               | Rev. No. | 0 |

## 7. RELIABILITY TEST :

| TEST ITEM                                    | SPECIFICATION                                                                        | TEST CONDITION                                                                                                                                                                                             |
|----------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SOLDERABILITY                                | MORE THAN 90% OF THE<br>TERMINAL ELECTRODE<br>SHALL BE COVERED<br>WITH FRESH SOLDER. | PREHEAT : 125±25°C FOR 60 SECONDS<br>SOLDER : H63A ( EUTECTIC SOLDER )<br>SOLDER TEMP. : 230±5°C<br>FLUX : ROSIN<br>DIP TIME : 4±1 SECONDS                                                                 |
| THERMAL SHOCK<br>TEST<br><br>( TEMP. CYCLE ) | INDUCTANCE SHALL<br>NOT CHANGE MORE<br>THAN ±20%                                     | ROOM TEMP. —————> $\frac{-25\pm 2^{\circ}\text{C}}{30 \text{ MINUTES}}$<br>15 MINUTES<br><br>ROOM TEMP. —————> $\frac{85\pm 2^{\circ}\text{C}}{30 \text{ MINUTES}}$<br>15 MINUTES<br><br>TOTAL : 50 CYCLES |
| HUMIDITY<br>RESISTANCE TEST                  |                                                                                      | TEMPERATURE : 40±2°C<br>HUMIDITY : 90 ~ 95%<br>APPLIED CURRENT : PER SPEC.<br>TIME : 500 HOURS                                                                                                             |
| HIGH TEMP.<br>RESISTANCE TEST                |                                                                                      | TEMPERATURE : 85±2°C<br>APPLIED CURRENT : PER SPEC.<br>TIME : 500 HOURS                                                                                                                                    |



TAMURA