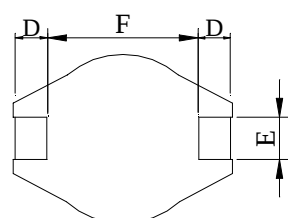
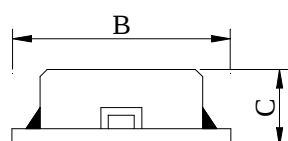
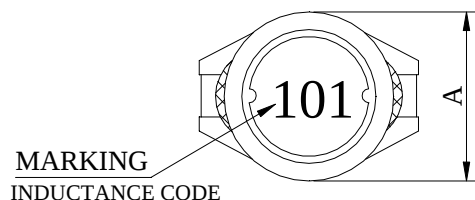


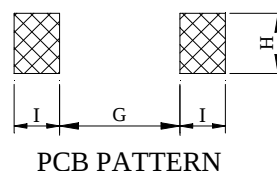
# PRODUCT SPECIFICATION

|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
| Product Name    | 5022 SMD POWER INDUCTORS - SHIELDED TYPE | Page     | 1 |
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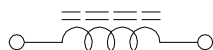
## 1.CONFIGURATION & DIMENSIONS :



|   |   |            |     |
|---|---|------------|-----|
| A | : | 15.00±0.3  | m/m |
| B | : | 18.40±0.3  | m/m |
| C | : | 7.00±0.5   | m/m |
| D | : | 2.40±0.2   | m/m |
| E | : | 2.20±0.2   | m/m |
| F | : | 13.30±0.3  | m/m |
| G | : | 12.70 REF. | m/m |
| H | : | 2.80 REF.  | m/m |
| I | : | 3.00 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

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## 4. ELECTRICAL CHARACTERISTICS :

| TAMURA Part No. | INDUCTANCE<br>( $\mu$ H) | Q<br>REF. | TEST FREQ. ( HZ ) |   | SRF<br>( MHZ )<br>TYP. | RDC<br>( mOhm )<br>MAX | IDC<br>( A ) |
|-----------------|--------------------------|-----------|-------------------|---|------------------------|------------------------|--------------|
|                 |                          |           | L                 | Q |                        |                        |              |
| TS5022-100M     | 10 $\pm$ 20%             | 70        | 100K              |   | 20.0                   | 30                     | 4.00         |
| TS5022-150M     | 15 $\pm$ 20%             | 55        | 100K              |   | 17.0                   | 35                     | 3.60         |
| TS5022-220M     | 22 $\pm$ 20%             | 45        | 100K              |   | 15.0                   | 45                     | 3.15         |
| TS5022-330M     | 33 $\pm$ 20%             | 55        | 100K              |   | 10.0                   | 60                     | 2.80         |
| TS5022-470M     | 47 $\pm$ 20%             | 45        | 100K              |   | 8.5                    | 80                     | 2.45         |
| TS5022-680M     | 68 $\pm$ 20%             | 50        | 100K              |   | 6.5                    | 115                    | 2.00         |
| TS5022-101M     | 100 $\pm$ 20%            | 70        | 100K              |   | 5.5                    | 180                    | 1.70         |
| TS5022-151M     | 150 $\pm$ 20%            | 60        | 100K              |   | 5.0                    | 220                    | 1.35         |
| TS5022-221M     | 220 $\pm$ 20%            | 65        | 100K              |   | 4.0                    | 320                    | 1.15         |
| TS5022-331M     | 330 $\pm$ 20%            | 80        | 100K              |   | 3.0                    | 500                    | 0.90         |
| TS5022-471M     | 470 $\pm$ 20%            | 90        | 100K              |   | 2.5                    | 750                    | 0.75         |
| TS5022-681M     | 680 $\pm$ 20%            | 100       | 100K              |   | 2.3                    | 1100                   | 0.65         |
| TS5022-102M     | 1000 $\pm$ 20%           | 90        | 100K              |   | 1.9                    | 1500                   | 0.55         |

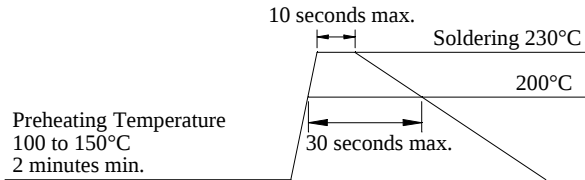


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# PRODUCT SPECIFICATION

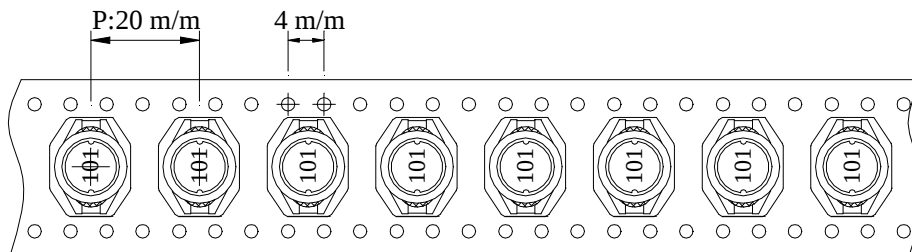
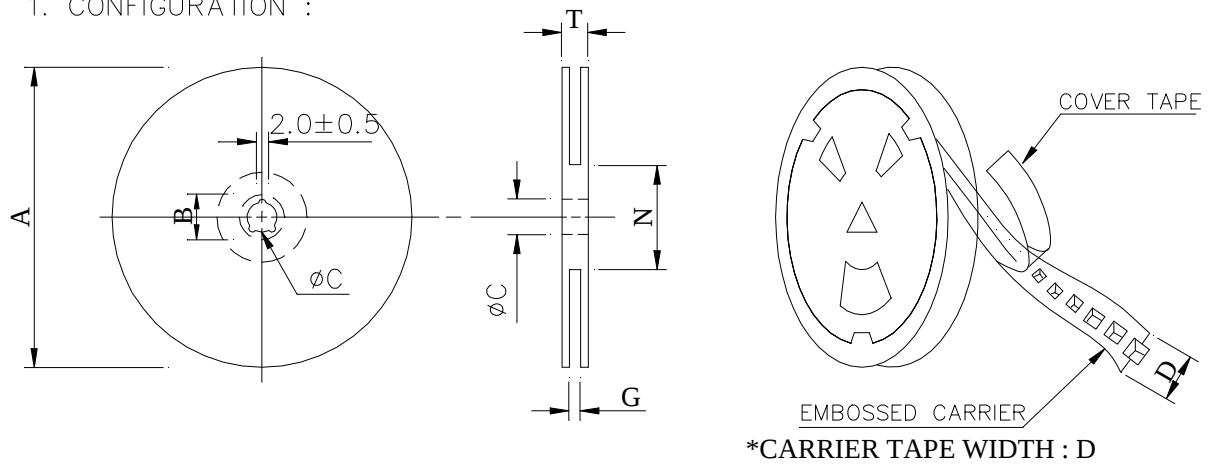
|                 |                                          |          |   |
|-----------------|------------------------------------------|----------|---|
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## RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



## 5. PACKAGING INFORMATION :

### 1. CONFIGURATION :



### ( 2 ) DIMENSIONS

Unit:m/m

| STYLE   | A   | B      | C      | D  | G      | N       | T    |
|---------|-----|--------|--------|----|--------|---------|------|
| 13 - 32 | 330 | 21±0.8 | 13±0.5 | 32 | 34 MAX | 100 MAX | 38.4 |

### ( 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)    |
| TS5022 | 250          | 1250      | 13 - 32 | 1000           | 5         | 40 x 40 x 26 |

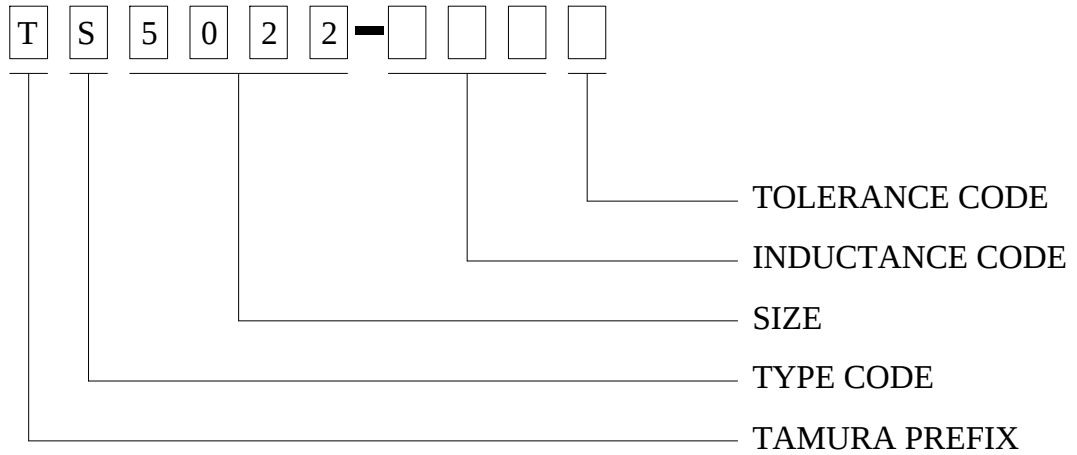


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# PRODUCT SPECIFICATION

|                 |                                          |          |   |
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## 6. Part No. FORMAT :



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# PRODUCT SPECIFICATION

|                 |                                          |          |   |
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## 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. —————→ -25±2°C<br>15 MINUTES                      30 MINUTES<br><br>ROOM TEMP. —————→ 85±2°C<br>15 MINUTES                      30 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                                                                                                        |



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