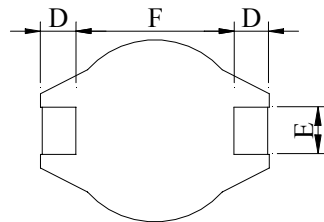
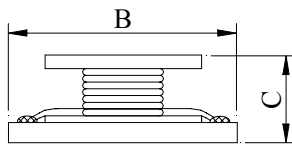
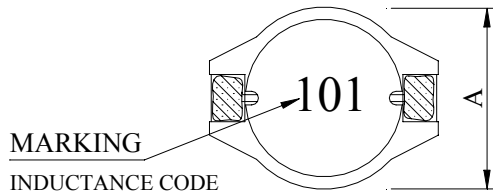


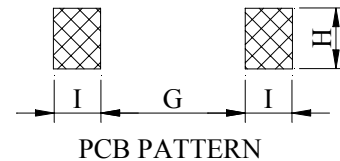
# PRODUCT SPECIFICATION

|                 |                                      |          |   |
|-----------------|--------------------------------------|----------|---|
| Product Name    | 3316 SMD POWER INDUCTORS - OPEN TYPE | Page     | 1 |
| TAMURA Part No. | TO3316-XXX□                          | Rev. No. | 0 |

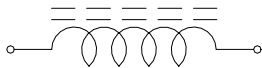
## 1. CONFIGURATION & DIMENSIONS :



|   |   |          |     |
|---|---|----------|-----|
| A | : | 10.0±0.2 | m/m |
| B | : | 12.7±0.2 | m/m |
| C | : | 5.0±0.3  | m/m |
| D | : | 2.4±0.2  | m/m |
| E | : | 2.2±0.2  | m/m |
| F | : | 7.6±0.3  | m/m |
| G | : | 7.3 REF. | m/m |
| H | : | 2.8 REF. | m/m |
| I | : | 3.0 REF. | m/m |



## 2. SCHEMATIC DIAGRAM :



## 3. GENERAL SPECIFICATION :

- TEMP. RISE : 40°C TYP.
- RATED CURRENT : BASE ON TEMP. RISE &  $\Delta$  LOA=10% TYP.
- STORAGE TEMP. : -40°C ~ +125°C
- OPERATING TEMP. : -25°C ~ +105°C
- 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 |                      |                      |            |
| TO3316-1R0M     | 1.0 $\pm$ 20%            | 50        | 100K            |   | 150.0                | 9                    | 6.8        |
| TO3316-1R5M     | 1.5 $\pm$ 20%            | 50        | 100K            |   | 100.0                | 10                   | 6.4        |
| TO3316-2R2M     | 2.2 $\pm$ 20%            | 45        | 100K            |   | 85.0                 | 12                   | 6.1        |
| TO3316-3R3M     | 3.3 $\pm$ 20%            | 35        | 100K            |   | 60.0                 | 15                   | 5.4        |
| TO3316-4R7M     | 4.7 $\pm$ 20%            | 35        | 100K            |   | 45.0                 | 18                   | 4.8        |
| TO3316-6R8M     | 6.8 $\pm$ 20%            | 35        | 100K            |   | 35.0                 | 27                   | 4.4        |
| TO3316-100M     | 10.0 $\pm$ 20%           | 30        | 100K            |   | 25.0                 | 38                   | 3.9        |
| TO3316-150M     | 15.0 $\pm$ 20%           | 30        | 100K            |   | 20.0                 | 46                   | 3.1        |
| TO3316-220M     | 22.0 $\pm$ 20%           | 25        | 100K            |   | 18.0                 | 85                   | 2.7        |
| TO3316-330M     | 33.0 $\pm$ 20%           | 30        | 100K            |   | 14.0                 | 100                  | 2.1        |
| TO3316-470M     | 47.0 $\pm$ 20%           | 20        | 100K            |   | 11.0                 | 140                  | 1.8        |
| TO3316-680M     | 68.0 $\pm$ 20%           | 35        | 100K            |   | 10.0                 | 200                  | 1.5        |
| TO3316-101M     | 100.0 $\pm$ 20%          | 40        | 100K            |   | 7.0                  | 280                  | 1.3        |
| TO3316-151M     | 150.0 $\pm$ 20%          | 40        | 100K            |   | 6.5                  | 400                  | 1.0        |
| TO3316-221M     | 220.0 $\pm$ 20%          | 40        | 100K            |   | 5.0                  | 610                  | 0.8        |
| TO3316-331M     | 330.0 $\pm$ 20%          | 60        | 100K            |   | 4.0                  | 1020                 | 0.6        |
| TO3316-471M     | 470.0 $\pm$ 20%          | 50        | 100K            |   | 3.0                  | 1270                 | 0.5        |
| TO3316-681M     | 680.0 $\pm$ 20%          | 65        | 100K            |   | 2.5                  | 2020                 | 0.4        |
| TO3316-102M     | 1000.0 $\pm$ 20%         | 60        | 100K            |   | 2.0                  | 3000                 | 0.3        |

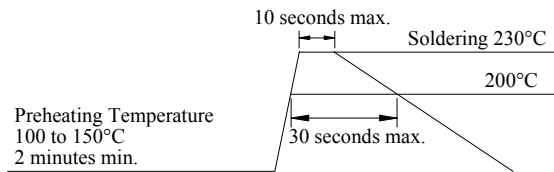


TAMURA

# PRODUCT SPECIFICATION

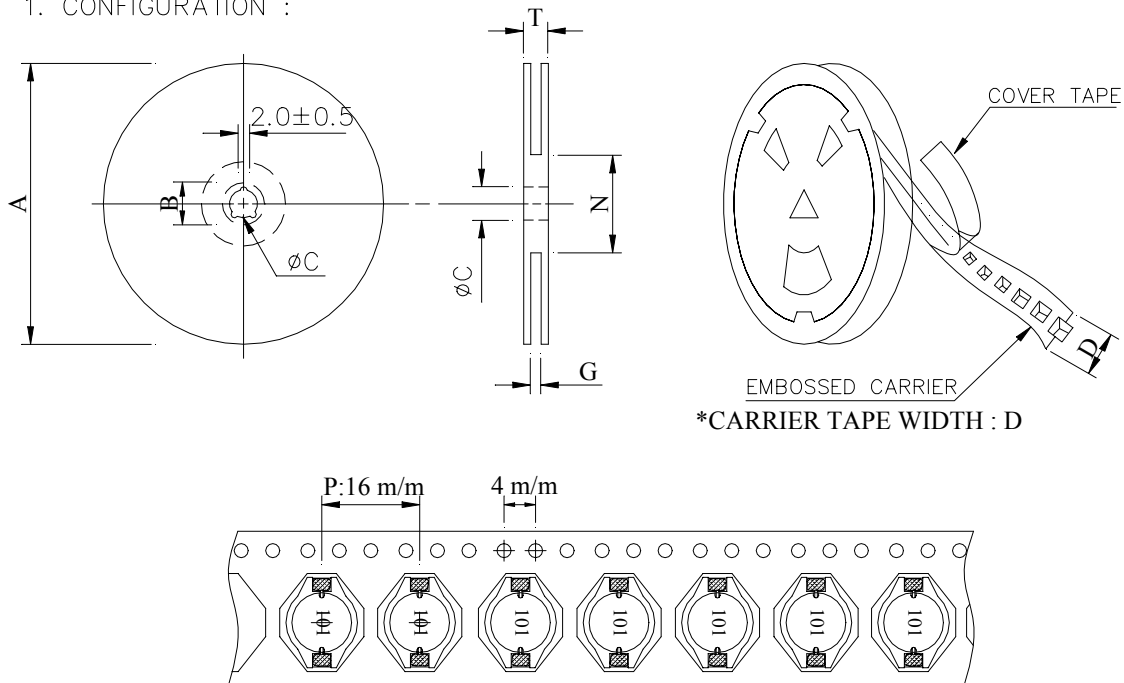
|               |                                      |          |   |
|---------------|--------------------------------------|----------|---|
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## RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



## PACKAGING INFORMATION :

### 1. CONFIGURATION :



### 2. DIMENSIONS : (m/m)

| STYLE   | A   | B      | C      | D  | G      | N      | T    |
|---------|-----|--------|--------|----|--------|--------|------|
| 13 - 24 | 330 | 21±0.8 | 13±0.5 | 24 | 26 MAX | 50 MIN | 30.4 |

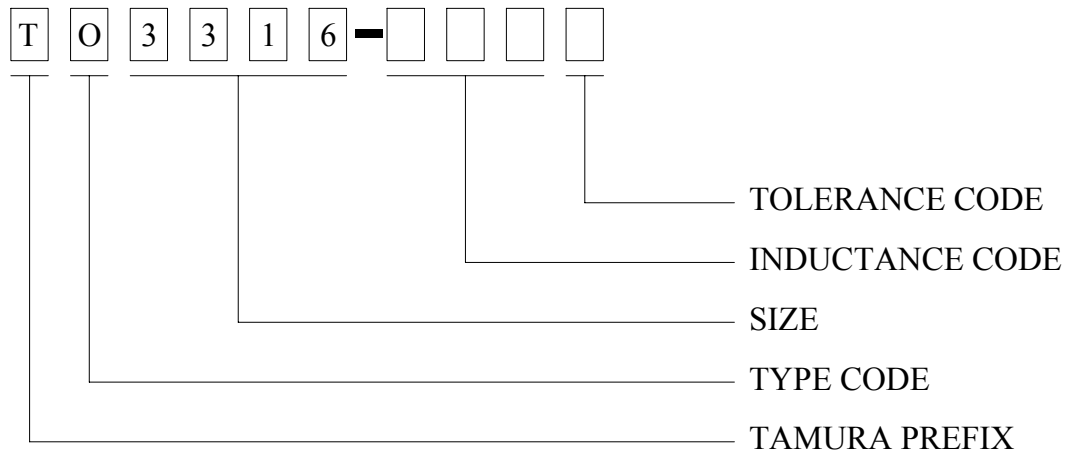
### 3. Q'TY & G.W. PER PACKAGE :

| SERIES | INNER : REEL |           |         | OUTER : CARTON |           |              |
|--------|--------------|-----------|---------|----------------|-----------|--------------|
|        | Q'TY (PCS)   | G.W. (gw) | STYLE   | Q'TY (PCS)     | G.W. (kg) | SIZE (cm)    |
| T03316 | 500          | 1000      | 13 - 24 | 2000           | 5.5       | 40 x 40 x 24 |

# PRODUCT SPECIFICATION

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



# 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. —————→ $-25\pm 2^{\circ}\text{C}$<br>15 MINUTES                      30 MINUTES<br><br>ROOM TEMP. —————→ $85\pm 2^{\circ}\text{C}$<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                                                                                                                                              |