

# SMD POWER INDUCTORS



MODEL NO. : SPC-0704 ERIES (CDRH74 COMPATIBLE)

## FEATURES:

- \* SUPERIOR QUALITY FROM AN AUTOMATED PRODUCTION LINE.
- \* PICK AND PLACE COMPATIBLE.
- \* TAPE AND REEL PACKING.

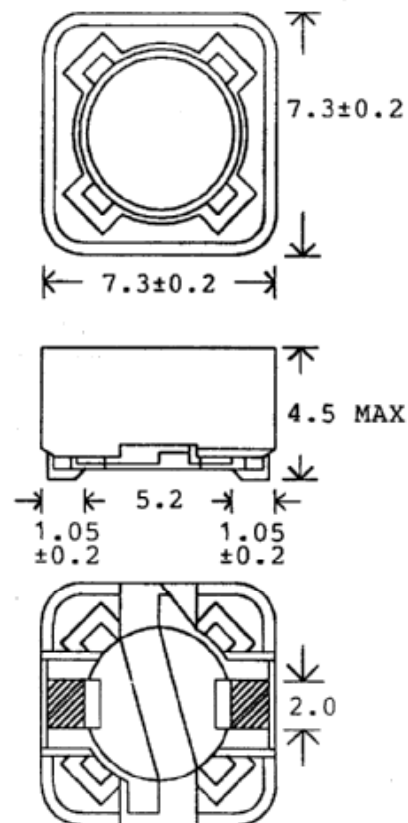
## APPLICATION :

- \* NOTEBOOK COMPUTERS.
- \* DC-DC CONVERTERS.
- \* DC-AC INVERTERS.

## ELECTRICAL SPECIFICATION:

| PART NO.     | INDUCTANCE<br>( $\mu$ H)<br>$\pm 20\%$ | D.C.R.<br>MAX<br>( ) | RATED<br>CURRENT<br>(A) |
|--------------|--|----------------------|-------------------------|
| SPC-0704-100 | 10                                     | 0.049                | 1.84                    |
| SPC-0704-120 | 12                                     | 0.058                | 1.71                    |
| SPC-0704-150 | 15                                     | 0.081                | 1.47                    |
| SPC-0704-180 | 18                                     | 0.090                | 1.31                    |
| SPC-0704-220 | 22                                     | 0.11                 | 1.23                    |
| SPC-0704-270 | 27                                     | 0.15                 | 1.12                    |
| SPC-0704-330 | 33                                     | 0.17                 | 0.96                    |
| SPC-0704-390 | 39                                     | 0.23                 | 0.91                    |
| SPC-0704-470 | 47                                     | 0.26                 | 0.88                    |
| SPC-0704-560 | 56                                     | 0.35                 | 0.75                    |
| SPC-0704-680 | 68                                     | 0.38                 | 0.69                    |
| SPC-0704-820 | 82                                     | 0.43                 | 0.61                    |
| SPC-0704-101 | 100                                    | 0.61                 | 0.60                    |
| SPC-0704-121 | 120                                    | 0.66                 | 0.52                    |
| SPC-0704-151 | 150                                    | 0.88                 | 0.46                    |
| SPC-0704-181 | 180                                    | 0.98                 | 0.42                    |
| SPC-0704-221 | 220                                    | 1.17                 | 0.36                    |
| SPC-0704-271 | 270                                    | 1.64                 | 0.34                    |
| SPC-0704-331 | 330                                    | 1.86                 | 0.32                    |
| SPC-0704-391 | 390                                    | 2.85                 | 0.29                    |
| SPC-0704-471 | 470                                    | 3.01                 | 0.26                    |
| SPC-0704-561 | 560                                    | 3.62                 | 0.23                    |
| SPC-0704-681 | 680                                    | 4.63                 | 0.22                    |
| SPC-0704-821 | 820                                    | 5.20                 | 0.20                    |
| SPC-0704-102 | 1000                                   | 6.00                 | 0.18                    |

## PHYSICAL DIMENSION : (UNIT:mm)



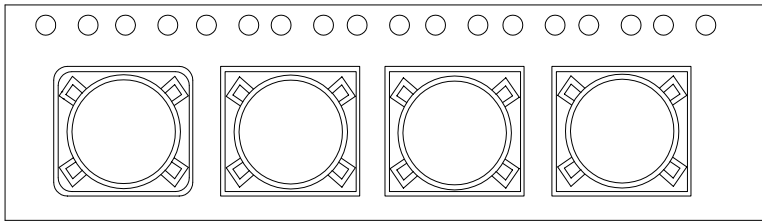
**TOLERANCE :  $\pm 0.3$**

NOTE(1):TEST FREQUENCY: 1 kHz,1 VRMS.

NOTE(2):THIS INDICATES THE VALUE OF DC CURRENT WHICH THE INDUCTANCE IS 10% LOWER THAN ITS INITIAL VALUE AND/OR  $\Delta T = 40$  UNDER THIS DC CURRENT BIAS.

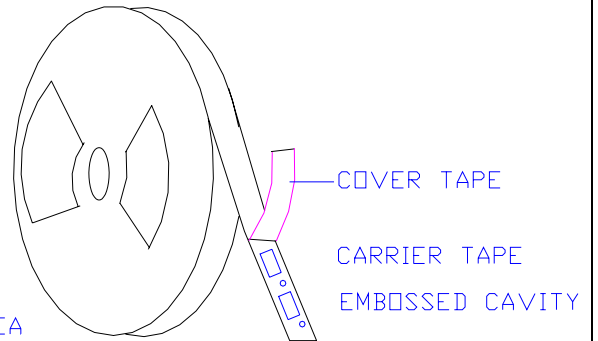
# PACKING

## Tape and Reel Orientation



USER DIRECTION OF FEED

LABEL AREA



NOTE : Top view shown with cover tape removed.

| TAPE WIDTH | REEL WIDTH | COMPONENT PITCH | UNITS PER REEL |
|------------|------------|-----------------|----------------|
| 16mm       | 22.4mm     | 12mm            | 1000           |

### TAPE SPECIFICATIONS:

Carrier Tape Type : Conductive.

Cover Tape Type : Antistatic.

Cover Tape Adhesion to Carrier : 10 - 70 grams.

### REEL SPECIFICATIONS:

Antistatic.

Diameter (flange) : 13" (330.2mm)

STANDARDS : All embossed carrier tape packaging will be accomplished in compliance with latest revision of EIA-481

"Taping of surface Mount Components for Automatic Placement".

# ENVIRONMENTAL PERFORMANCE

| ITEM | TEST                  | CONDITION  |
|------|-----------------------|--|
| 1    | Thermal Shock         | (1)Ten cycles of 30 minutes @-30 .<br>(2)15 seconds maximum @ room ambient.<br>(3)30 minutes @+85 .<br>(4)15 seconds maximum @ room ambient.<br>Subject samples to 10 cycles. Test per applicable specification after a 4 hours stabilization at room ambient. |
| 2    | Vibration             | Inductance deviation within ±3.0% after vibration for 1 hour.<br>In each of three orientations at sweep vibration (10 50 10Hz) with 1.5mm P-P amplitude.   |
| 3    | Solderability         | Solder pot at 230 ±5 , with kester 1544 solder flux. Dip parts into solder pot containing 63/37 molten alloy for 5 second ±1 second. Wetting must occur on a minimum of 90% of the terminations.   |
| 4    | Operating Temperature | -25 +80 ( coil contain heat)   |
| 5    | Humidity              | Inductance deviation within±5.0%<br>After 96 hour in 90 95% relative humidity at 40±2 and 1 hour drying under normal condition.  |
| 6    | Mechanical Shock      | Inductance deviation within±5.0% after drop down with 981m/s <sup>2</sup> (100G)shock.<br>Attitude upon a rubber block method shock testing machine, for 1 time, in each of three orientations.  |