

# SMD POWER INDUCTORS

MODEL NO. : SMI-75 SERIES (CD75 COMPATIBLE)

**FEATURES:**

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

**APPLICATION :**

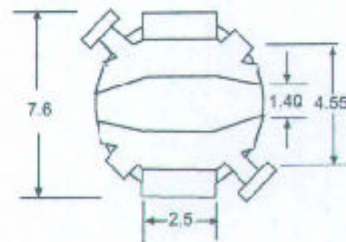
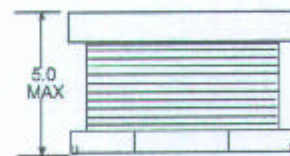
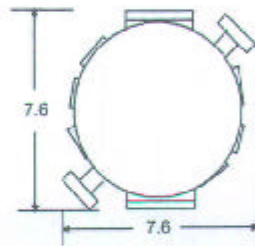
- \* NOTEBOOK COMPUTERS.
- \* DC-DC CONVERTORS.
- \* DC-AC INVERTERS.



**ELECTRICAL SPECIFICATION:**

PART NO.	INDUCTANCE (uH)	D.C.R. MAX (Ω)	RATED CURRENT (A)
SMI-75-100	10	0.07	2.30
SMI-75-120	12	0.08	2.00
SMI-75-150	15	0.09	1.80
SMI-75-180	18	0.10	1.60
SMI-75-220	22	0.11	1.50
SMI-75-270	27	0.12	1.30
SMI-75-330	33	0.13	1.20
SMI-75-390	39	0.16	1.10
SMI-75-470	47	0.18	1.00
SMI-75-560	56	0.24	0.94
SMI-75-680	68	0.28	0.85
SMI-75-820	82	0.37	0.78
SMI-75-101	100	0.43	0.72
SMI-75-121	120	0.47	0.66
SMI-75-151	150	0.64	0.58
SMI-75-181	180	0.71	0.51
SMI-75-221	220	0.96	0.49
SMI-75-271	270	1.11	0.42
SMI-75-331	330	1.26	0.40
SMI-75-391	390	1.77	0.36
SMI-75-471	470	1.96	0.34

**PHYSICAL DIMENSION : (UNIT:mm)**



TOLERANCE: ±0.3

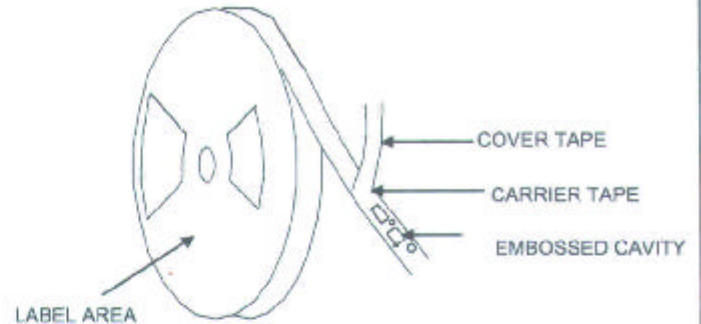
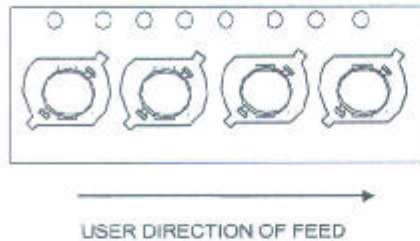
NOTE(1): TEST FREQUENCY: 100KHz, 1VRMS.

NOTE(2): 10~470uH ±10%.

NOTE(3): THIS INDICATES THE VALUE OF CURRENT WHEN THE INDUCTANCE IS 10% LOWER THAN ITS INITIAL VALUE AT D.C. CURRENT WHEN AT ΔT=40°C WHICHEVER IS LOWER.

## PACKING

### Tape and Reel Orientation



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:

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