

SMD POWER INDUCTORS

MODEL NO. : SMI-70 SERIES (CD73 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:

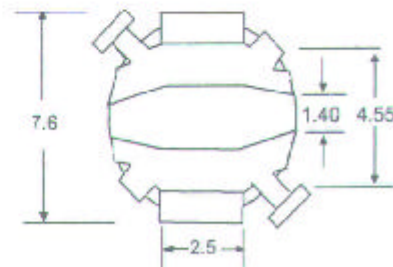
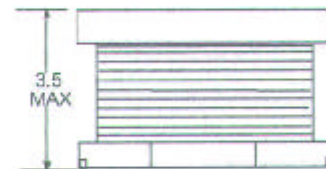
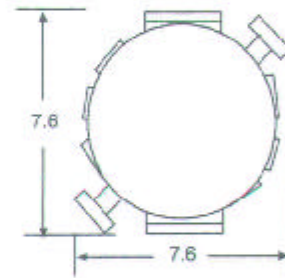
PART NO.	INDUCTANCE (uH)	DCR MAX (Ω)	RATED CURRENT (A)
SMI-70-100	10	0.08	1.44
SMI-70-120	12	0.09	1.39
SMI-70-150	15	0.10	1.24
SMI-70-180	18	0.11	1.12
SMI-70-220	22	0.13	1.07
SMI-70-270	27	0.15	0.94
SMI-70-330	33	0.17	0.85
SMI-70-390	39	0.22	0.74
SMI-70-470	47	0.25	0.68
SMI-70-560	56	0.28	0.64
SMI-70-680	68	0.33	0.59
SMI-70-820	82	0.41	0.54
SMI-70-101	100	0.48	0.51
SMI-70-121	120	0.54	0.49
SMI-70-151	150	0.75	0.40
SMI-70-181	180	1.02	0.36
SMI-70-221	220	1.20	0.31
SMI-70-271	270	1.31	0.29
SMI-70-331	330	1.50	0.28

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

NOTE(2): 10~47uH $\pm 20\%$, 56~330uH $\pm 10\%$.

NOTE(3): THIS INDICATES THE VALUE OF CURRENT WHEN THE INDUCTANCE IS 10% LOWER THAN ITS INITIAL VALUE AT D.C. CURRENT WHEN $\Delta T = 40^\circ\text{C}$ WHICHEVER IS LOWER.

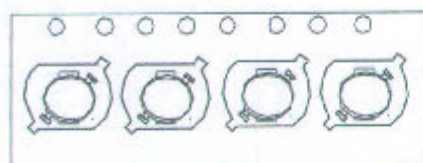
PHYSICAL DIMENSION : (UNIT:mm)



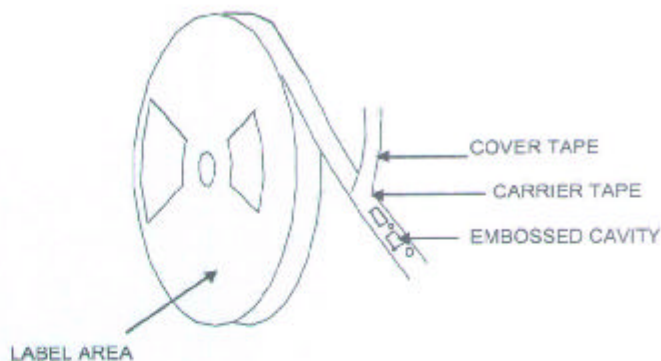
TOLERANCE: ± 0.3

PACKING

Tape and Reel Orientation



USER DIRECTION OF FEED



NOTE : Top view shown with cover tape removed.

TAPE WIDTH	REEL WIDTH	COMPONENT PITCH	UNITS PER REEL
16mm	22.4mm	12mm	1500

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 ± 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 981m/s^2 (100G) shock. Altitude upon a rubber block method shock testing machine, for 1 time, in each of three orientations.