

# POWER SMD INDUCTORS

MODEL NO. : SPC-0905 SERIES (CDR105B COMPATIBLE)

## FEATURES:

\* SUPERIOR QUALITY FROM AN  
AUTOMATED PRODUCTION LINE.

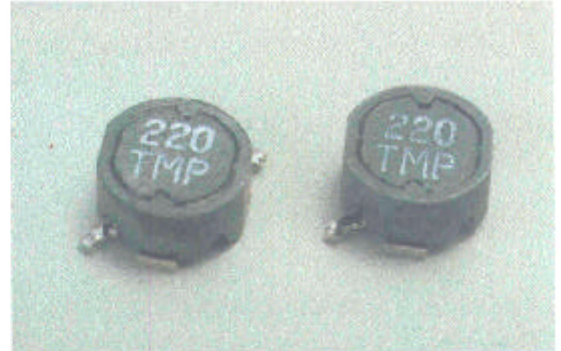
\* PICK AND PLACE COMPATIBLE.

\* TAPE AND REEL PACKING.

## APPLICATION :

\* NOTEBOOK COMPUTERS.

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



## ELECTRICAL SPECIFICATION:

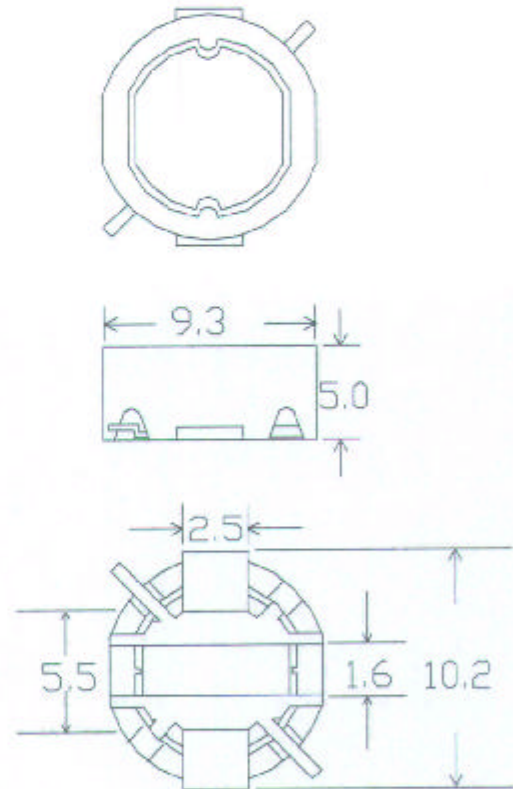
PART NO.	INDUCTANCE (uH)	D.C.R. MAX (Ω)	RATED CURRENT (A)
SPC-0905-100	10	0.06	2.06
SPC-0905-120	12	0.07	1.94
SPC-0905-150	15	0.07	1.72
SPC-0905-180	18	0.08	1.58
SPC-0905-220	22	0.08	1.42
SPC-0905-270	27	0.10	1.32
SPC-0905-330	33	0.11	1.16
SPC-0905-390	39	0.12	1.10
SPC-0905-470	47	0.14	1.00
SPC-0905-560	56	0.19	0.93
SPC-0905-680	68	0.21	0.85
SPC-0905-820	82	0.28	0.79
SPC-0905-101	100	0.34	0.72
SPC-0905-121	120	0.37	0.63
SPC-0905-151	150	0.51	0.55
SPC-0905-181	180	0.57	0.50
SPC-0905-221	220	0.78	0.47
SPC-0905-271	270	0.87	0.41
SPC-0905-331	330	1.20	0.37
SPC-0905-391	390	1.34	0.35
SPC-0905-471	470	1.50	0.33

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

NOTE(2): 10~27uH  $\pm 20\%$ , 33~82uH  $\pm 15\%$ , 100~470uH  $\pm 10\%$ .

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.

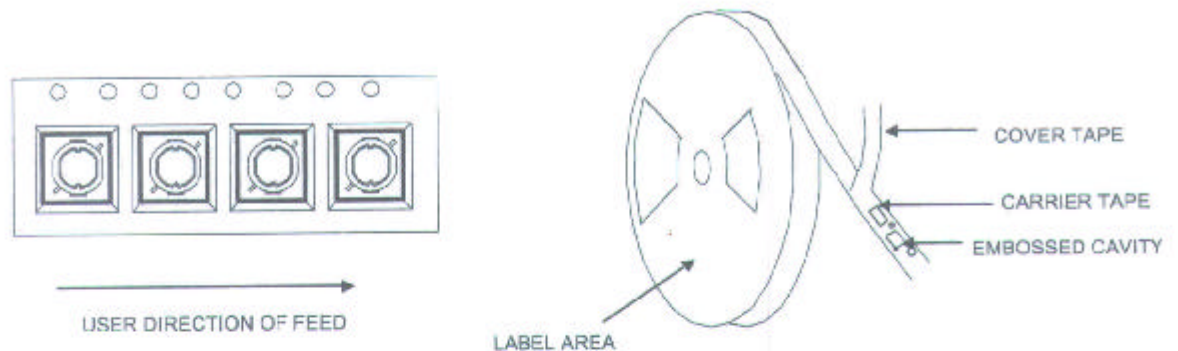
## PHYSICAL DIMENSION : (UNIT:mm)



TOLERANCE:  $\pm 0.3$

## PACKING

### Tape and Reel Orientation



NOTE : Top view shown with cover tape removed.

TAPE	REEL	WIDTH	COMPONENT	PITCH	UNITS	PER	REEL
WIDTH							
24mm		32mm		16mm		800	

#### 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) 30 minutes 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.