

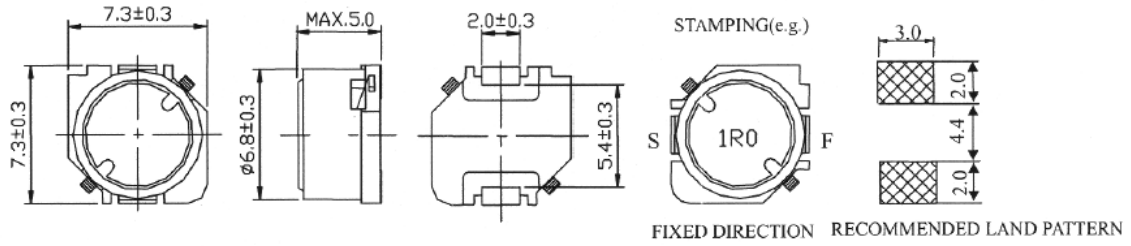


# SMD POWER INDUCTORS

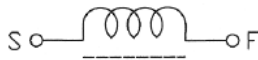
## SPECIFICATION

TYPE	SD75NP
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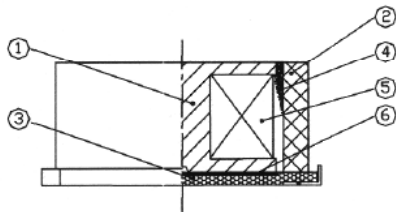
### 1. DIMENSION (UNIT : mm)



### 2. CIRCUIT



### 3. CONSTRUCTION



No.	PARTS	MATERIAL
1	DRUM CORE	FERRITE CORE EL8H OR EQUIVALENT
2	RING CORE	FERRITE CORE EL8H OR EQUIVALENT
3	BASE	DIALLYL PHTHALATE DAP AM-100 OR EQUIVALENT OR PHENOLIC: PM9630
4	ADHESIVE	EPOXY RESIN (EB-360)
5	WIRE	POLYURETHANE ENAMELLED COPPER WIRE
6	ADHESIVE	EPOXY RESIN (A-312)



# SMD POWER INDUCTORS

TYPE

SD75NP

## 4. ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE ( $\mu$ H) WITHIN	D.C.R. ( $\Omega$ ) Max.	RATED CURRENT (A) Max.	
					Idc 1	Idc 2
01	SD75NP-1R0M	1R0	1.0 $\pm$ 20%	25m	4.0	3.0
02	SD75NP-1R5M	1R5	1.5 $\pm$ 20%	30m	3.4	2.8
03	SD75NP-2R2M	2R2	2.2 $\pm$ 20%	35m	3.0	2.6
04	SD75NP-3R3M	3R3	3.3 $\pm$ 20%	40m	2.4	2.5
05	SD75NP-3R9M	3R9	3.9 $\pm$ 20%	46m	2.2	2.4
06	SD75NP-4R7M	4R7	4.7 $\pm$ 20%	52m	2.0	2.3
07	SD75NP-5R6M	5R6	5.6 $\pm$ 20%	56m	1.8	2.1
08	SD75NP-6R8M	6R8	6.8 $\pm$ 20%	62m	1.7	2.0
09	SD75NP-8R2M	8R2	8.2 $\pm$ 20%	68m	1.5	1.9
10	SD75NP-100M	100	10 $\pm$ 20%	74m	1.3	1.8
11	SD75NP-120M	120	12 $\pm$ 20%	85m	1.2	1.7
12	SD75NP-150M	150	15 $\pm$ 20%	92m	1.1	1.6
13	SD75NP-180M	180	18 $\pm$ 20%	0.10	1.0	1.5
14	SD75NP-220M	220	22 $\pm$ 20%	0.12	0.90	1.4
15	SD75NP-270M	270	27 $\pm$ 20%	0.13	0.80	1.3
16	SD75NP-330M	330	33 $\pm$ 20%	0.15	0.75	1.2
17	SD75NP-390M	390	39 $\pm$ 20%	0.16	0.70	1.1
18	SD75NP-470M	470	47 $\pm$ 20%	0.18	0.63	1.0
19	SD75NP-560M	560	56 $\pm$ 20%	0.19	0.58	0.98
20	SD75NP-680M	680	68 $\pm$ 20%	0.23	0.54	0.94
21	SD75NP-820M	820	82 $\pm$ 20%	0.28	0.50	0.90
22	SD75NP-101M	101	100 $\pm$ 20%	0.31	0.42	0.84
23	SD75NP-121M	121	120 $\pm$ 20%	0.39	0.40	0.76
24	SD75NP-151M	151	150 $\pm$ 20%	0.44	0.36	0.70
25	SD75NP-181M	181	180 $\pm$ 20%	0.60	0.30	0.62
26	SD75NP-221M	221	220 $\pm$ 20%	0.70	0.28	0.56
27	SD75NP-271M	271	270 $\pm$ 20%	0.80	0.25	0.53
28	SD75NP-331M	331	330 $\pm$ 20%	1.0	0.23	0.47
29	SD75NP-391M	391	390 $\pm$ 20%	1.2	0.22	0.43
30	SD75NP-471M	471	470 $\pm$ 20%	1.3	0.20	0.40
31	SD75NP-561M	561	560 $\pm$ 20%	1.6	0.18	0.38
32	SD75NP-681M	681	680 $\pm$ 20%	2.0	0.16	0.32
33	SD75NP-821M	821	820 $\pm$ 20%	2.4	0.15	0.30
34	SD75NP-102M	102	1000 $\pm$ 20%	3.0	0.14	0.28

\* TESTING INSTRUMENT

INDUCTANCE: HP 4284A OR EQUIVALENT.

D.C.R. : HP-34420A OR EQUIVALENT.

RATED CURRENT: HP 4284A,HP 42841A,HP E3632A,HP 34401A OR EQUIVALENT.

\* TESTING CONDITIONS OF INDUCTANCE : at 100kHz/1V(1R0~8R2) ; at 1kHz/1V(100~102).

\* Idc 1: THE CURRENT WHEN THE INDUCTANCE DECREASES TO 90% OF NOMINAL VALUE. (Ta= 25°C)

\* Idc 2: THE CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 40°C. (Ta= 25°C)

\* THE RATED CURRENT INDICATES THE SMALLER ONE BETWEEN Idc 1 AND Idc 2.

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# SMD POWER INDUCTORS

TYPE	SD75NP
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## 5. GENERAL CHARACTERISTICS

\* STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15°C TO 35°C. RELATIVE HUMIDITY : 25% TO 85%. AIR PRESSURE : 86kPa TO 106kPa.

IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS: AMBIENT TEMPERATURE: 20°C±1°C. RELATIVE HUMIDITY : 63% TO 67%. AIR PRESSURE : 86kPa TO 106kPa.

No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE STORAGE TEMPERATURE		-25 ~ +85°C (INCLUDING COIL TEMPERATURE RISE) -40 ~ +85°C
2	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X,Y. AND Z WITH THE FSORCE OF 5.0N FOR 60±5 SECONDS.AFTER SOLDERING BETWEEN COPPER PLATE AND TERMINAL.	NO ELECTRODE DETACHMENT.
3	RESISTANCE TO SOLDERING HEAT TEST	REFER TO STD-002NP	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%
4	HAND SOLDERING	350±10°C FOR 3±1 SECONDS.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0%
5	SOLDERABILITY TEST	IMMERSE THE TERMINAL IN FLUX FOR 5 SECONDS. THEN DIP THE TERMINAL INTO A SOLDERING BATH OF 245±5°C FOR 2±0.5 SECONDS.	OVER 90% OF THE SURFACE BEING IMMERSERD SHALL BE COVERED WITH NEW SOLDER. UNIFORMLY.
6	VIBRATION TEST	AMPLITUDE:1.5mm P-P FREQUENCY:10~55~10Hz (1 MINUTE PER CYCLE) DURATION:2 HOURS IN EACH OF X,Y,Z AXIS (TOTAL 6 HOURS)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±1.0%
7	SHOCK TEST	PEAK ACCELERATION: 981m/s <sup>2</sup> DURATION OF PULSE:10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS.(TOTAL 9 TIMES)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0%
8	HUMIDITY TEST	TEMPERATURE: 40°C±2°C HUMIDITY: 90%~95% RH DURATION:96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±3.0%

## 6. PACKING

PACKAGE TO BE ACCORDING TO SPECIFICATIONS (TICK THE RELEVANT " ✓ ")

- KB -OTH053
- KB -OTH054
- KB -CTR020

\* ENCLOSING CONDITION OF COILS.(IN THE CASE OF KB -CTR020)

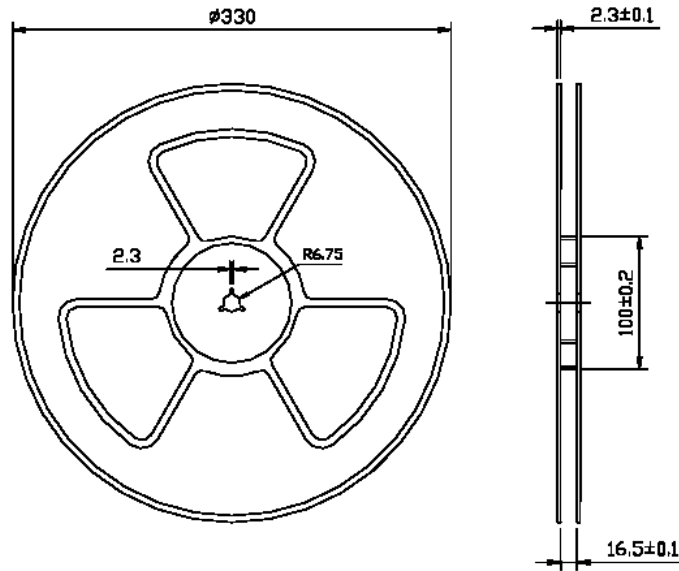


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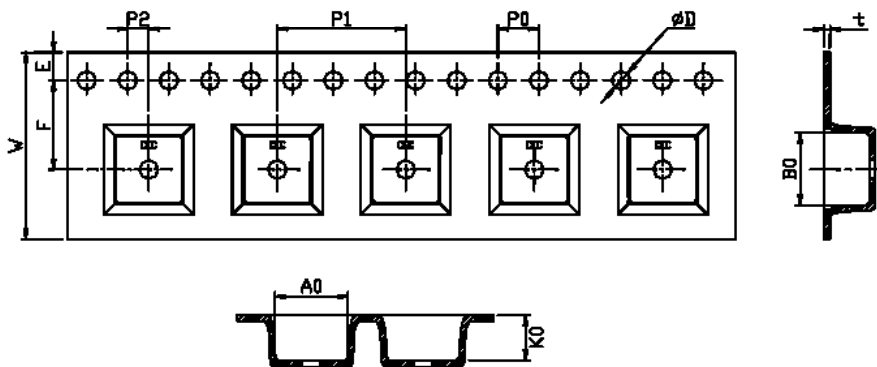


# SMD POWER INDUCTORS

## REEL DIMENSIONS



## TAPE DIMENSIONS



DIMENSIONS (UNIT: mm)											
SERIES	W	A0	B0	D	K0	E	F	P0	P1	P2	t
	16±0.3	7.5±0.1	7.7±0.1	φ 1.55±0.05	5.0±0.1	1.75±0.1	7.5±0.1	4.0±0.1	12±0.1	2.0±0.1	0.35±0.05

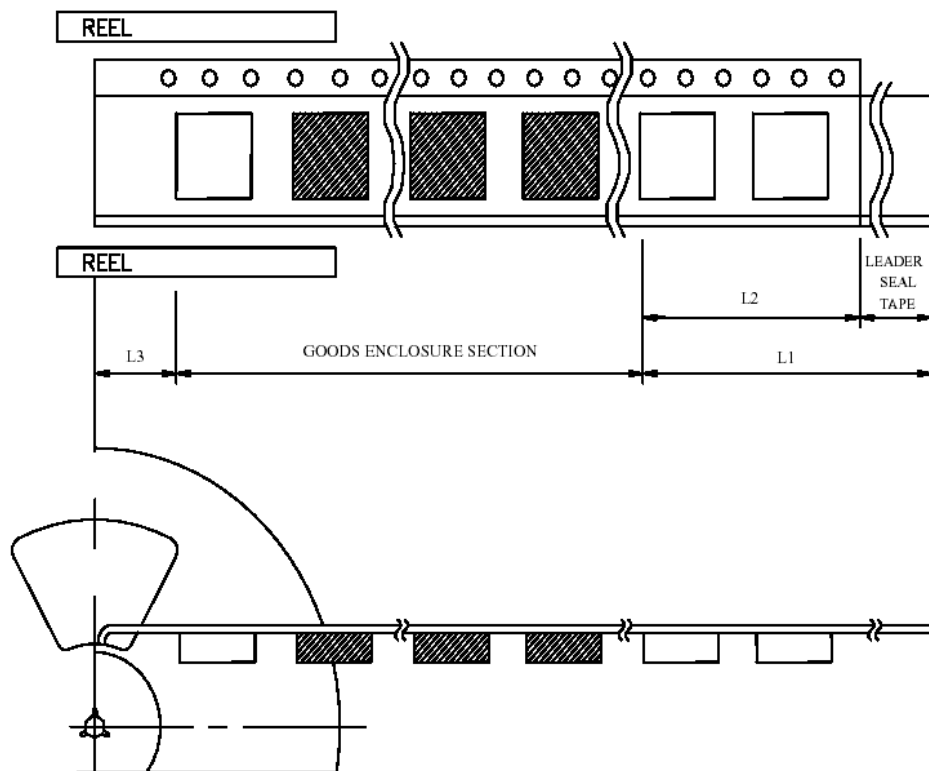
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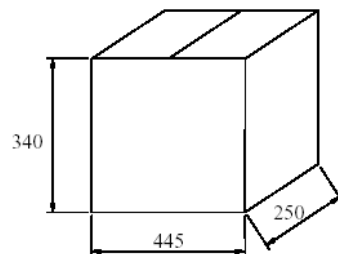
# SMD POWER INDUCTORS

## TAPE DIMENSION

L1	LEADER SECTION LENGTH	MIN. 400mm
L2	START CARRIER TAPE LENGTH	MIN. 100mm
L3	TRAILER SECTION LENGTH	MIN. 160mm
	QUANTITY	1000pcs



### 7. OUTCARTON



10 Reels/Carton Total 10,000 Pcs

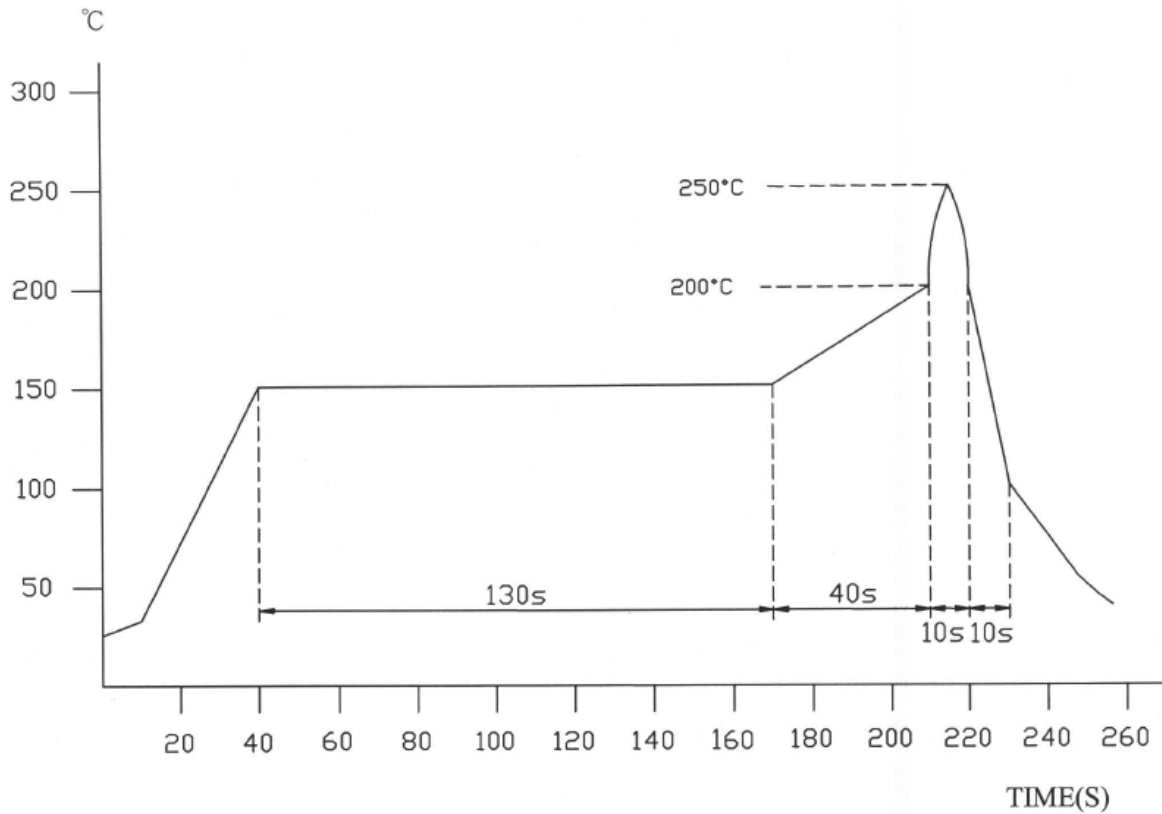
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## SMD POWER INDUCTORS

### THE RECOMMENDED REFLOW CONDITION (LEAD FREE)

TEMPERATURE



\* THE REFLOW CONDITION RECOMMENDED ABOVE IS ACCORDING TO THE MACHINE USED BY OUR COMPANY. BIG DIFFERENCES WILL ARISE AS A RESULT OF THE TYPE OF MACHINE, REFLOW CONDITIONS, METHOD, ETC USED. HENCE, BEFORE SETTING UP YOUR REFLOW CONDITIONS, PLEASE CONFIRM WITH THE ABOVE. MOREOVER, PLEASE CLEAR ALL DOUBTS WITH OUR COMPANY BEFORE STARTING.

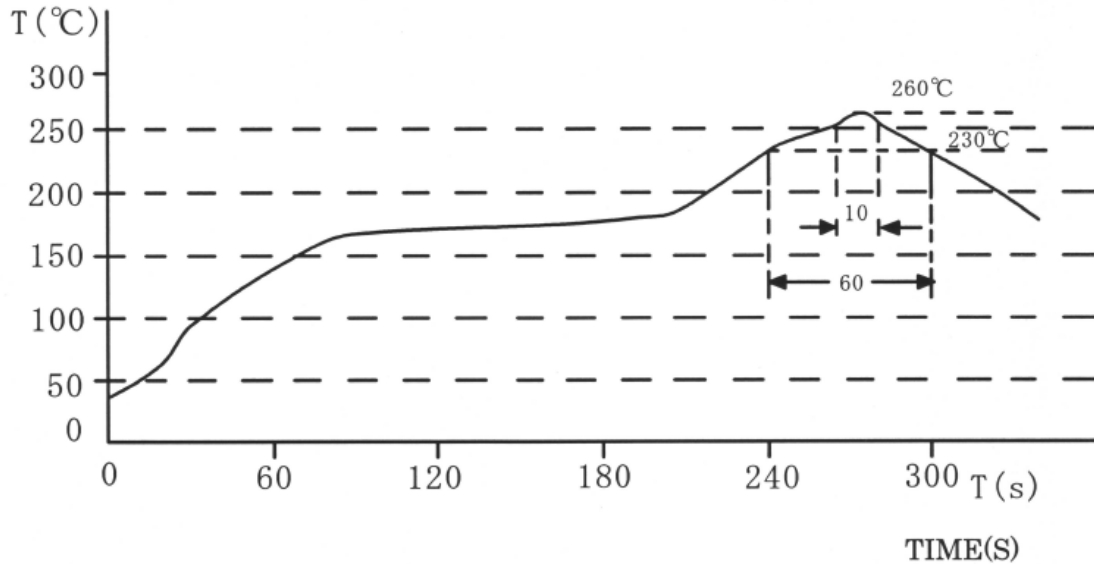
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## SMD POWER INDUCTORS

### HEAT ENDURANCE TEST (LEAD FREE)

TEMPERATURE



- \* THE TEST SHOULD BE MADE UNDER THE CONDITIONS ACCORDING TO THE CHART, AFTER THE TEST IT IS KEPT FOR 2 HOURS UNDER THE NORMAL TEMPERATURE AND HUMIDITY. THEN, NO MECHANICAL AND ELECTRICAL DEFECT SHOULD BE FOUND OUT.
- \* THE REFLOW TEST CAN BE DONE TWICE, BUT THE INTERVAL SHOULD BE MORE THAN ONE HOUR UNDER THE NORMAL CONDITIONS.
- \* THE REFLOW TEST CONDITIONS ARE BASED ON THE TESTING INSTRUMENTS AVAILABLE IN CEC.

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