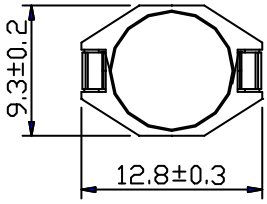
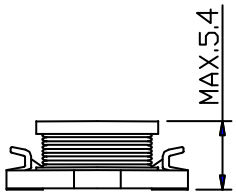
SMD POWER INDUCTORS

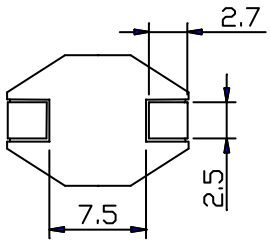
SPECIFICATION

TYPE
DBS135NP

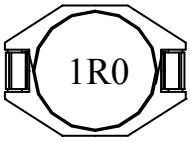
1. DIMENSION (UNIT : mm)







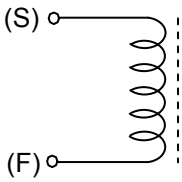
STAMP(e.g.)



FIXED DIRECTION

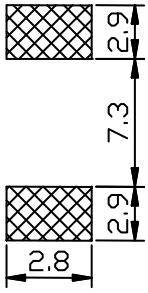
* DIMENSIONS WITHOUT TOLERANCE ARE APPROX.

2. CIRCUIT



"S" IS WINDING START.

3. RECOMMENDED LAND PATTERN (UNIT: mm)



4. ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE WITHIN		D.C.R. (mΩ) Max.	S.R.F. (MHz) Ref.	RATED CURRENT (A) Max.	
			L (μH)	TOLERANCE			Idc 1	Idc 2
01	DBS135NP-1R0□	1R0	1.0	M	9	167	9.9	7.2
02	DBS135NP-1R5□	1R5	1.5		10	126	9.6	7.0
03	DBS135NP-2R0□	2R0	2.0		12	90	8.1	6.4
04	DBS135NP-2R7□	2R7	2.7		14	66	7.3	5.9
05	DBS135NP-3R3□	3R3	3.3		15	50	6.6	5.4
06	DBS135NP-3R9□	3R9	3.9		17	47	5.8	5.1
07	DBS135NP-4R7□	4R7	4.7		18	43	5.4	4.8
08	DBS135NP-5R6□	5R6	5.6		23	38	5.0	4.6
09	DBS135NP-6R8□	6R8	6.8		27	34	4.6	4.4
10	DBS135NP-8R2□	8R2	8.2		32	31	4.2	4.1
11	DBS135NP-100□	100	10	K, M	38	28	3.8	3.9
12	DBS135NP-120□	120	12		42	25	3.5	3.5

SMD POWER INDUCTORS

TYPE
DBS135NP

ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE WITHIN		D.C.R. (mΩ) Max.	S.R.F. (MHz) Ref.	RATED CURRENT (A) Max.	
			L(μH)	TOLERANCE			Idc 1	Idc 2
13	DBS135NP-150□	150	15	K, M	46	21	3.0	3.1
14	DBS135NP-180□	180	18		64	18	2.8	2.9
15	DBS135NP-220□	220	22		85	17	2.6	2.7
16	DBS135NP-270□	270	27		95	16	2.2	2.3
17	DBS135NP-330□	330	33		100	14	2.1	2.1
18	DBS135NP-390□	390	39		120	13	1.9	1.9
19	DBS135NP-470□	470	47		140	11	1.7	1.8
20	DBS135NP-560□	560	56		170	10	1.5	1.6
21	DBS135NP-680□	680	68		200	9.0	1.4	1.5
22	DBS135NP-820□	820	82		250	8.0	1.3	1.4
23	DBS135NP-101□	101	100		280	7.7	1.2	1.3
24	DBS135NP-121□	121	120		360	7.2	1.1	1.1
25	DBS135NP-151□	151	150		400	6.1	1.0	1.0
26	DBS135NP-181□	181	180		500	5.6	0.87	0.90
27	DBS135NP-221□	221	220		610	5.3	0.80	0.80
28	DBS135NP-271□	271	270		750	4.9	0.71	0.70
29	DBS135NP-331□	331	330		950	4.6	0.66	0.60
30	DBS135NP-391□	391	390		1090	3.9	0.58	0.55
31	DBS135NP-471□	471	470		1270	3.5	0.53	0.50
32	DBS135NP-561□	561	560		1570	3.2	0.49	0.45
33	DBS135NP-681□	681	680		2020	2.7	0.45	0.40
34	DBS135NP-821□	821	820		2350	2.6	0.41	0.32
35	DBS135NP-102□	102	1000		3000	2.4	0.36	0.30

* □: K: ±10%; M: ±20%;

* TESTING INSTRUMENT
  INDUCTANCE: HP 4284A OR EQUIVALENT.
  D.C.R: HP 34420A MICRO OHM METER OR EQUIVALENT.
  Idc1: HP 4284A & HP 42841A OR EQUIVALENT; Idc2: HP E3632A & HP 34401A OR EQUIVALENT.
  S.R.F: HP 4395A, HP 4285A OR EQUIVALENT.
* TESTING CONDITIONS OF INDUCTANCE: 1.0μH ~ 8.2μH at 100 kHz / 1.0V
  10μH ~ 1mH at 1.0 kHz / 1V

* Idc 1: THE CURRENT WHEN THE INDUCTANCE DECREASES TO 90% OF INITIAL VALUE (Ta=25℃).
* Idc 2: THE CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 40℃ (Ta= 25℃).
* THE RATED CURRENT INDICATES THE SMALLER ONE BETWEEN Idc1 AND Idc2.

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℃ TO 35℃. RELATIVE HUMIDITY: 25% TO 85%. AIR PRESSURE: 86kPa TO 106kPa.

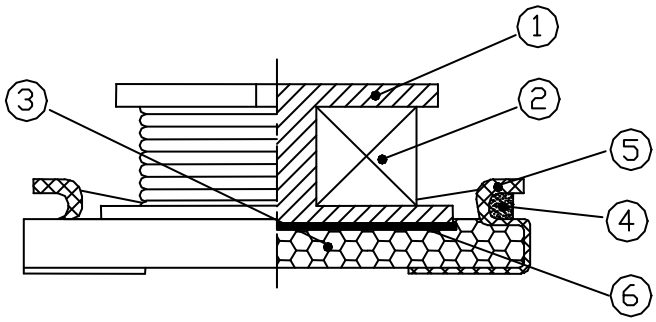
IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS: AMBIENT TEMPERATURE: 20℃ ± 1℃. RELATIVE HUMIDITY: 63% TO 67%. AIR PRESSURE: 86kPa TO 106kPa.

No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE STORAGE TEMPERATURE		-40 ~ +85℃ (INCLUDING COIL TEMPERATURE RISE) -40 ~ +85℃
2	TEMPERATURE COEFFICIENT	-40 ~ +85℃	0 ~ 2000 ppm/℃
3	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X, Y AND Z WITH FORCE OF 10N FOR 60 ± 5 SECONDS. AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
4	RESISTANCE TO SOLDERING HEAT TEST	PLEASE REFER TO THE ATTACHMENT STD-002NP.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ± 5.0%
5	SOLDER ABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS. THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245 ± 5℃ FOR 2 ± 0.5 SECONDS.	OVER 90% OF THE SURFACE BEING IMMERSED 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 ± 2.0%
7	SHOCK TEST	PEAK ACCELERATION: 981m/s^2 DURATION OF PULSE: 10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS. (TOTAL 9 TIMES)	
8	HUMIDITY TEST	TEMPERATURE: 40℃ ± 2℃ HUMIDITY: 90% ~ 95%RH DURATION: 96 ± 4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ± 5.0%

* RECOMMENDED REFLOW CONDITION BASES ON STD-001NP.

TYPE
DBS135NP

6. CONSTRUCTION



No.	PARTS	MATERIAL
①	CORE	FERRITE CORE EL8H OR EQUIVALENT
②	WIRE	POLYURETHANE ENAMELLED COPPER WIRE (SFBW TYPE)
③	BASE	LIQUID CRYSTAL POLYMER (LCP) E4008
④	SOLDER	Sn-Cu-Ni (SN100C4)
⑤	ELECTRODE	COPPER TINNED
⑥	ADHESIVE	EPOXY RESIN (XNR3614)

7. PACKING

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

* KB – PLT087
* KB – PLT088
* KB –CTR025

* ENCLOSING CONDITION OF COILS.(IN THE CASE OF KB –CTR025)