SMD POWER INDUCTORS

PDB0805 SERIES

1. PART NO. EXPRESSION :

P D B 0 8 0 5 1 0 1 M Z F

(a) (b) (c) (d)(e)(f)

(a) Series code

(b) Dimension code

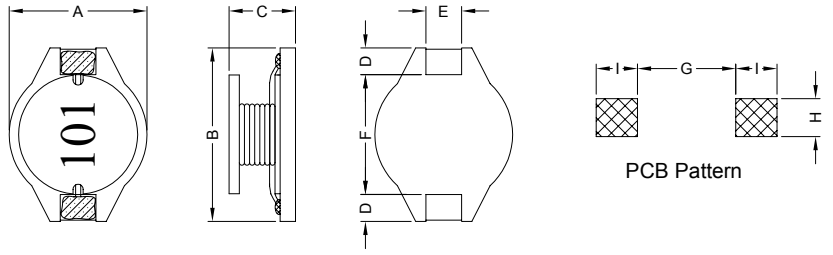
(c) Inductance code : 101 = 100uH

(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :

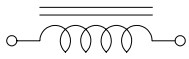


PCB Pattern

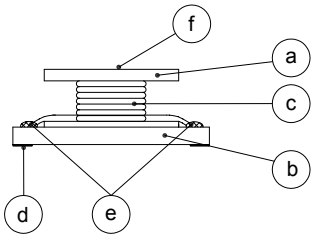
Unit:m/m

A	B	C	D	E	F	G	H	I
8.0±0.2	10.5±0.2	5.0±0.3	2.1±0.2	2.0±0.2	6.0±0.3	5.7 Ref.	2.2 Ref.	2.4 Ref.

3. SCHEMATIC :



4. MATERIALS :



(a) Core : DR Ferrite Core

(b) Base : LCP

(c) Wire : Enamelled Copper Wire

(d) Terminal : Tinned Copper Plate

(e) Adhesive : Epoxy

(f) Ink : Bon Margue

5. GENERAL SPECIFICATION :

a) Temp. rise : 40°C Max.

b) Rated current : Base on temp. rise & ΔL/L0A = 10% Max.

c) Storage temp. : -40°C to +125°C

d) Operating temp. : -40°C to +85°C

e) Resistance to solder heat : 260°C.10 secs

RoHS Compliant

NOTE : Specifications subject to change without notice. Please check our website for latest information.

01.05.2008

6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (μH)	Q Ref.	Test Frequency (Hz)	SRF (MHz) Typ.	RDC (mΩ) Max.	IDC (A)
PDB08053R3MZF	3.3±20%	40	1V / 100K	50.0	30	3.70
PDB08054R7MZF	4.7±20%	30	1V / 100K	40.0	35	3.30
PDB08056R8MZF	6.8±20%	30	1V / 100K	30.0	50	2.70
PDB0805100MZF	10.0±20%	25	1V / 100K	23.0	60	2.30
PDB0805150MZF	15.0±20%	25	1V / 100K	20.0	80	2.10
PDB0805220MZF	22.0±20%	25	1V / 100K	16.0	130	1.60
PDB0805330MZF	33.0±20%	25	1V / 100K	12.0	180	1.30
PDB0805470MZF	47.0±20%	45	1V / 100K	11.0	260	1.10
PDB0805680MZF	68.0±20%	35	1V / 100K	9.0	350	1.10
PDB0805101MZF	100.0±20%	55	1V / 100K	7.0	580	0.70
PDB0805151MZF	150.0±20%	50	1V / 100K	5.0	750	0.60
PDB0805221MZF	220.0±20%	55	1V / 100K	4.0	1050	0.50
PDB0805331MZF	330.0±20%	50	1V / 100K	3.5	1600	0.45

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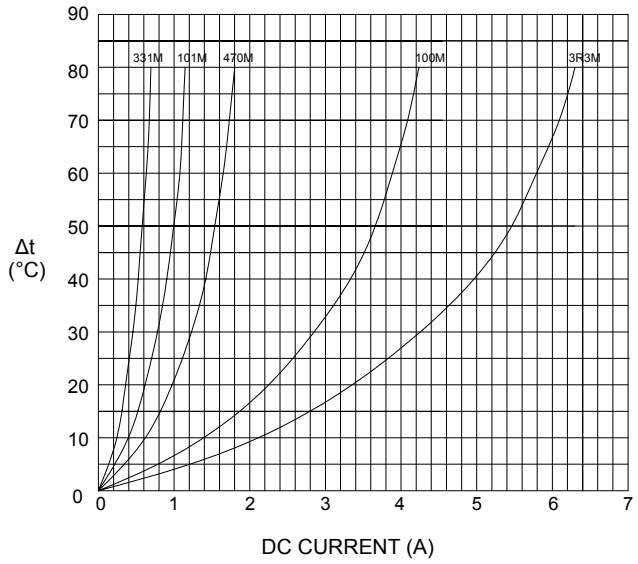
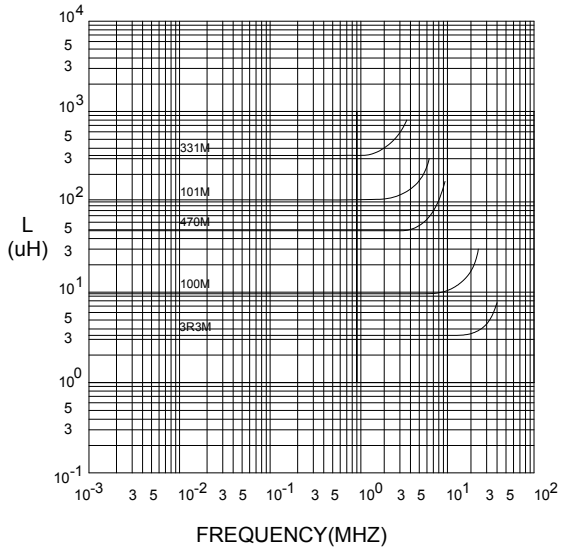
6. ELECTRICAL CHARACTERISTICS :

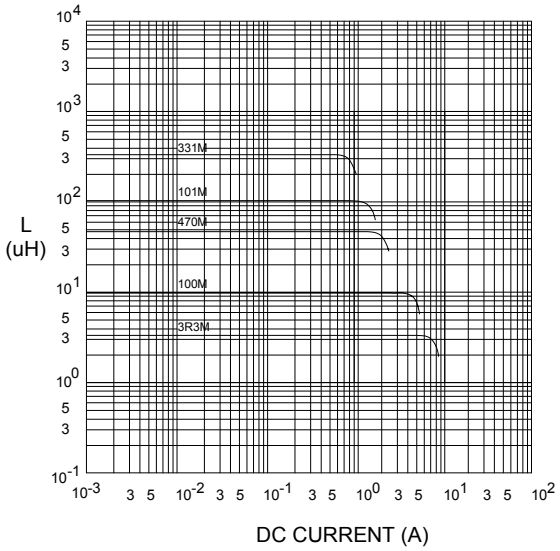
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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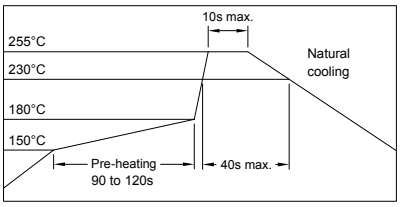
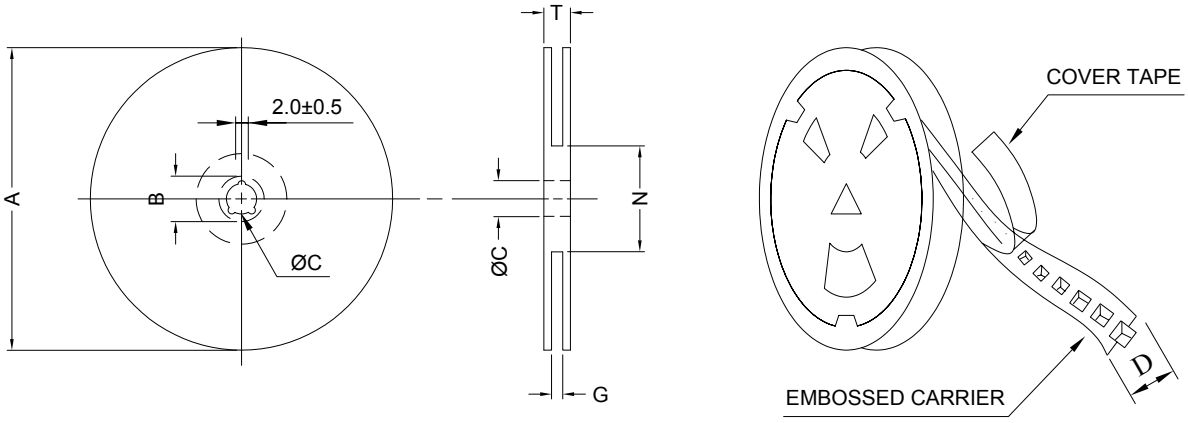
RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

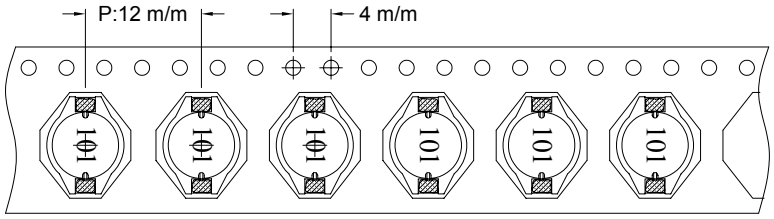


8. PACKAGING INFORMATION :

(1) CONFIGURATION



* CARRIER TAPE WIDTH : D



(2) DIMENSIONS

Unit:m/m

STYLE	A	B	C	D	G	N	T
13-24	330	21±0.8	13	24	26^{+0}	50^{-0}	30.4

(3) Q'TY & G.W. PER PACKAGE

SERIES	INNER : REEL			OUTER : CARTON		
	Q'TY (PCS)	G.W. (gw)	STYLE	Q'TY (PCS)	G.W. (Kg)	SIZE (cm)
PDB0805	1000	1000	13-24	4000	7.5	40 x 40 x 24

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9. RELIABILTY AND TEST CONDITION :

TEST ITEM	SPECIFICATION	TEST CONDITION
SOLDERABILITY	MORE THAN 90% OF THE TERMINAL ELECTRODE SHALL BE COVERED WITH FRESH SOLDER.	PREHEAT : 125±25°C FOR 60 SECONDS SOLDER : 99%Sn/0.3%Ag/0.7%Cu OR EQUIVALENT SOLDER TEMP. : 245±5°C FLUX : ROSIN DIP TIME : 4±1 SECONDS
THERMAL SHOCK TEST (TEMP. CYCLE)	INDUCTANCE SHALL NOT CHANGE MORE THAN ±20%	ROOM TEMP. (15 MINUTES) → -25±2°C (30 MINUTES) ROOM TEMP. (15 MINUTES) → 85±2°C (30 MINUTES) TOTAL : 50 CYCLES
HUMIDITY RESISTANCE TEST		TEMPERATURE : 40±2°C HUMIDITY : 90 ~ 95% APPLIED CURRENT : PER SPEC. TIME : 500 HOURS
HIGH TEMP. RESISTANCE TEST		TEMPERATURE : 85±2°C APPLIED CURRENT : PER SPEC. TIME : 500 HOURS

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10. UL CARD :

OBMW2 **November 30, 2000**

Magnet Wire - Component

PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD **E201757**
607 BAOLONG INDUSTRIAL ESTATE LONGGANG, SHENZHEN
GUANGDONG CHINA

	Coating Type		ANSI	
Mtl Dsg	BC	TC	Type	TI
UEW/U	**Polyurethane**	—	—	**130**
PEW/U	**Polyester**	—	**MW5-C**	**155°C**
PEWH/U	**Modified Polyester**	—	**MW30-C**	**180**
PEW-NY/U	**Polyester**	**Polyamide**	**MW24-C**	**155**
HAI/U	**Polyester(Amide)(Imide)**	**Polyamideimide**	**MW35,73**	**200**
UEW-NY/U	**Polyurethane**	**Polyamide**	**MW80-C**	**155**
			MW28-C	**130**

Marking: Company name and material designation or marked designation on package or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions

1/3/2001 **Underwriters Laboratories Inc.** **Card 1 of 2**

SUMITOMO CHEMICAL CO LTD E54705 (M)
5-33 KITAHAMA 4-CHOME CHUO-KO, OSAKA JAPAN

Mtl Dsg	Col	Min Thk mm	UL94 Flame Class	Elec	RTI Mech with Imp	RTI w/o Imp	H W I	H A I	H V T R	D 4 9 5	C T I
Liquid crystal plyester (LCP), designated "EKONOL" or "SUMIKASUPER", furnished in the form of pellets, (Contd)											
E4008 , E400X	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—
		0.75	94V-0	130	130	130	3	4	—	—	—
		1.5	94V-0	130	130	130	2	4	—	—	—
		3.0	94V-0	130	130	130	1	4	0	5	4
E4008	NC , WT , BK	0.30	94V-0	130	130	130	—	—	—	—	—
		0.75	94V-0	220	180	220	3	4	—	—	—
		1.5	94V-0	220	200	240	2	4	—	—	—
		3.0	94V-0	220	200	240	1	4	0	5	4
E4010	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—
		0.75	94V-0	220	180	220	3	4	—	—	—
		1.5	94V-0	220	200	240	2	4	—	—	—
		3.0	94V-0	220	200	240	1	4	0	5	4
E400(Y)L , E4008L	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—
		0.75	94V-0	130	130	130	3	4	—	—	—
		1.5	94V-0	130	130	130	2	4	—	—	—
		3.0	94V-0	130	130	130	1	4	0	5	4
E4810	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—
		0.75	94V-0	130	130	130	0	4	—	—	—
		1.5	94V-0	130	130	130	0	4	—	—	—
		3.0	94V-0	130	130	130	1	4	0	5	4

(X) Denotes any number 1 thru 9.
(Y) Denotes any number 1 thru 7.

RoHS Compliant