SMD POWER INDUCTORS

PDB1011 SERIES

1. PART NO. EXPRESSION :

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

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

(a) Series code

(b) Dimension code

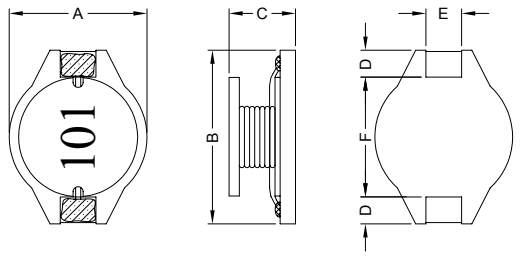
(c) Inductance code : 101 = 100uH

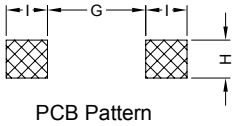
(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :



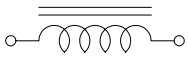


PCB Pattern

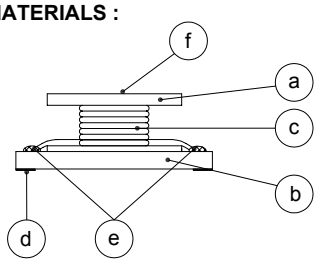
Unit:m/m

A	B	C	D	E	F	G	H	I
10.0±0.2	12.7±0.2	11.0±0.5	2.4±0.2	2.2±0.2	7.6±0.3	7.3 Ref.	2.8 Ref.	3.0 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

Pb

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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)
PDB1011100MZF	10±20%	30	1V / 100K	23.0	40	3.50
PDB1011150MZF	15±20%	30	1V / 100K	14.0	50	3.20
PDB1011220MZF	22±20%	40	1V / 100K	8.5	66	2.90
PDB1011330MZF	33±20%	40	1V / 100K	7.0	80	2.35
PDB1011470MZF	47±20%	35	1V / 100K	6.5	110	2.10
PDB1011680MZF	68±20%	35	1V / 100K	4.5	170	1.90
PDB1011101MZF	100±20%	30	1V / 100K	4.0	220	1.55
PDB1011151MZF	150±20%	30	1V / 100K	3.0	340	1.35
PDB1011221MZF	220±20%	50	1V / 100K	2.5	440	1.00
PDB1011331MZF	330±20%	50	1V / 100K	2.3	700	0.90
PDB1011471MZF	470±20%	45	1V / 100K	2.0	950	0.75
PDB1011681MZF	680±20%	50	1V / 100K	1.5	1200	0.55
PDB1011102MZF	1000±20%	50	1V / 100K	1.3	2000	0.50

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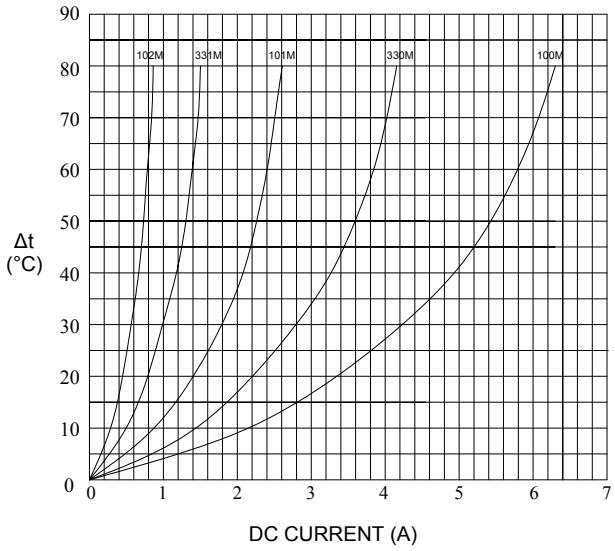
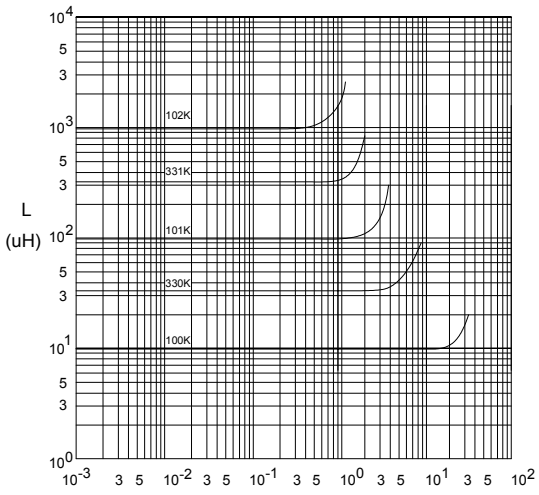
7. CHARACTERISTICS CURVES :

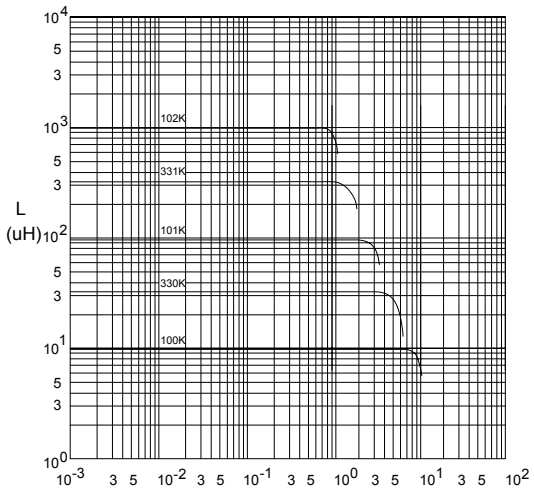
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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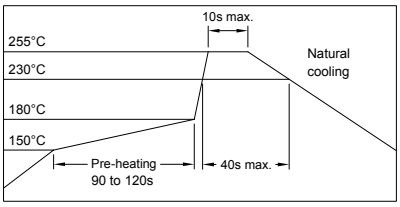
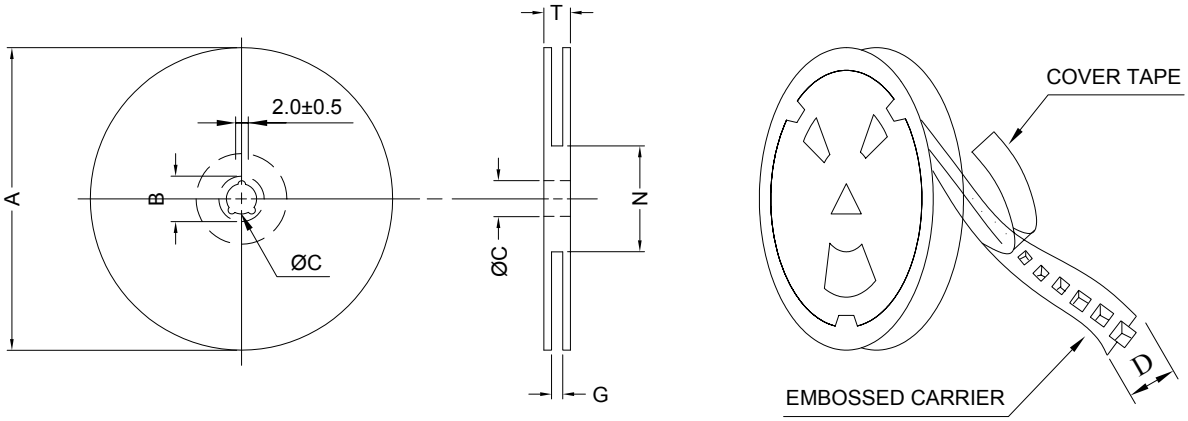
RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

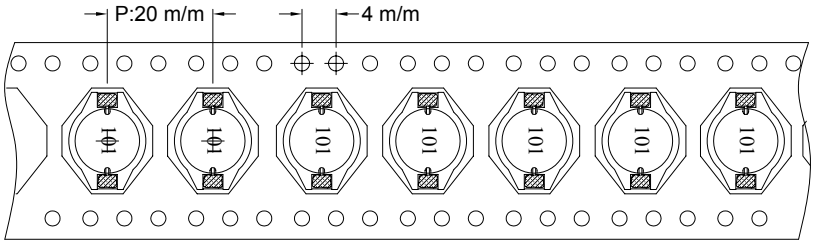


8. PACKAGING INFORMATION :

(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±0.5	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)
PDB1011	225	900	13-24	900	7.10	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 Mech w/o Imp	HWI	HAI	HVTR	D49 5	CTI
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.

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