

1. PART NO. EXPRESSION :

PSB10031R8MZ F

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

(a) Series code

(b) Dimension code

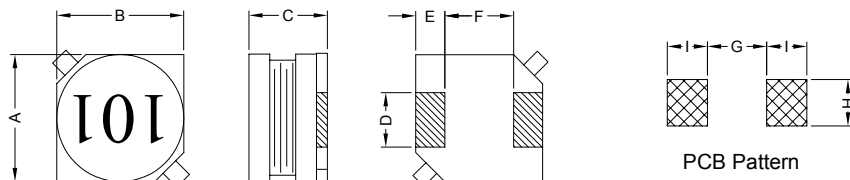
(c) Inductance code : 1R8 = 1.8uH

(d) Tolerance code : K = $\pm 10\%$, L = $\pm 15\%$, M = $\pm 20\%$

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :



PCB Pattern

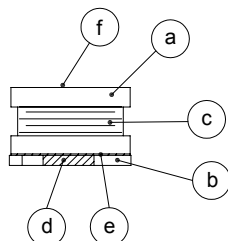
Unit:m/m

A	B	C	D	E	F	G	H	I
10.0 $\pm$ 0.3	10.0 $\pm$ 0.3	3.0 $\pm$ 0.3	2.4 $\pm$ 0.2	2.0 $\pm$ 0.2	6.0 $\pm$ 0.2	5.7 Ref.	2.8 Ref.	2.5 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

5. GENERAL SPECIFICATION :

- a) Temp. rise : 40°C Max.
- b) Rated current : Base on temp. rise & $\Delta L/L0A = 10\%$ 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

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05.05.2008



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6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (μ H)	Test Frequency (Hz)	RDC ($m\Omega$) Max.	IDC (A) Max.
PSB10031R8MZF	1.8 $\pm$ 20%	1V / 100K	27	4.00
PSB10032R7MZF	2.7 $\pm$ 20%	1V / 100K	30	3.65
PSB10033R9MZF	3.9 $\pm$ 20%	1V / 100K	35	3.15
PSB10034R7MZF	4.7 $\pm$ 20%	1V / 100K	40	3.00
PSB10036R8MZF	6.8 $\pm$ 20%	1V / 100K	50	2.35
PSB1003100MZF	10.0 $\pm$ 20%	1V / 100K	60	2.20
PSB1003120MZF	12.0 $\pm$ 20%	1V / 100K	80	2.00
PSB1003150MZF	15.0 $\pm$ 20%	1V / 100K	100	1.75
PSB1003180LZF	18.0 $\pm$ 15%	1V / 100K	110	1.70
PSB1003220LZF	22.0 $\pm$ 15%	1V / 100K	140	1.60
PSB1003270LZF	27.0 $\pm$ 15%	1V / 100K	160	1.40
PSB1003330LZF	33.0 $\pm$ 15%	1V / 100K	210	1.20
PSB1003390LZF	39.0 $\pm$ 15%	1V / 100K	235	1.10
PSB1003470LZF	47.0 $\pm$ 15%	1V / 100K	280	1.00
PSB1003560LZF	56.0 $\pm$ 15%	1V / 100K	320	0.90
PSB1003680LZF	68.0 $\pm$ 15%	1V / 100K	370	0.85
PSB1003820LZF	82.0 $\pm$ 15%	1V / 100K	430	0.75
PSB1003101KZF	100.0 $\pm$ 10%	1V / 100K	560	0.70
PSB1003121KZF	120.0 $\pm$ 10%	1V / 100K	640	0.60
PSB1003151KZF	150.0 $\pm$ 10%	1V / 100K	730	0.55
PSB1003181KZF	180.0 $\pm$ 10%	1V / 100K	960	0.50
PSB1003221KZF	220.0 $\pm$ 10%	1V / 100K	1100	0.48
PSB1003271KZF	270.0 $\pm$ 10%	1V / 100K	1240	0.45
PSB1003331KZF	330.0 $\pm$ 10%	1V / 100K	1640	0.38
PSB1003391KZF	390.0 $\pm$ 10%	1V / 100K	1790	0.35
PSB1003471KZF	470.0 $\pm$ 10%	1V / 100K	2050	0.30
PSB1003561KZF	560.0 $\pm$ 10%	1V / 100K	2890	0.29
PSB1003681KZF	680.0 $\pm$ 10%	1V / 100K	3240	0.27
PSB1003821KZF	820.0 $\pm$ 10%	1V / 100K	3700	0.25
PSB1003102KZF	1000.0 $\pm$ 10%	1V / 100K	7000	0.24



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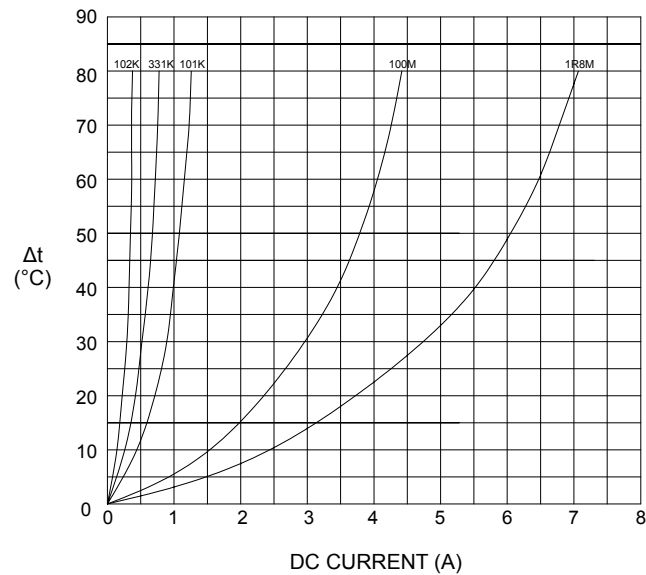
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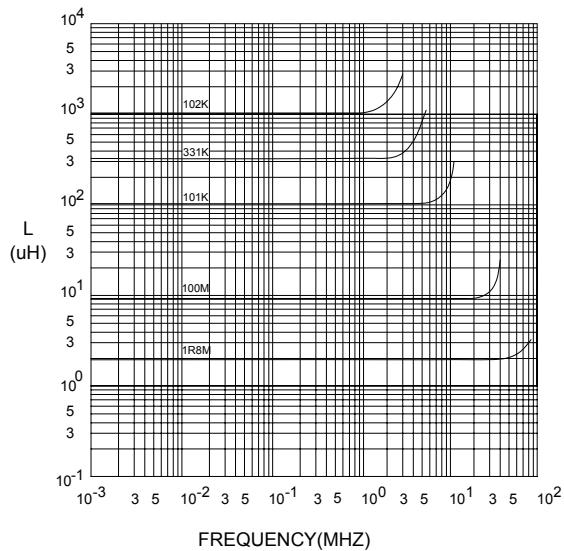
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7. CHARACTERISTICS CURVES :

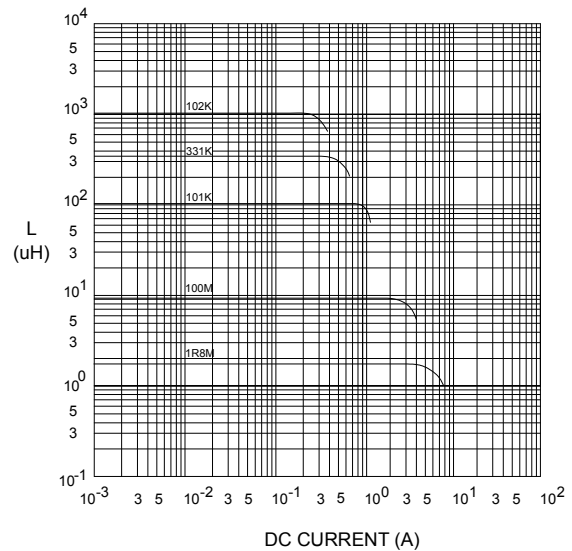
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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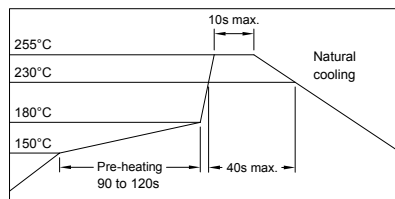
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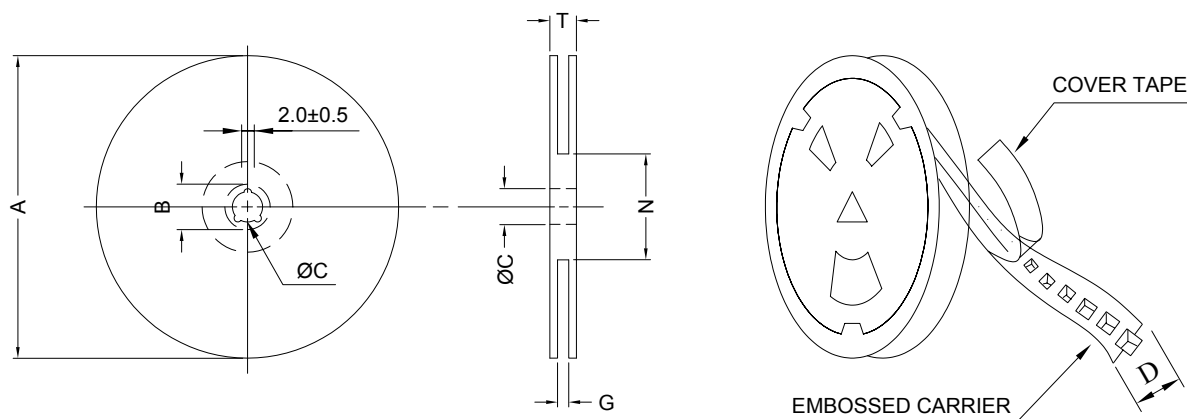
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RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

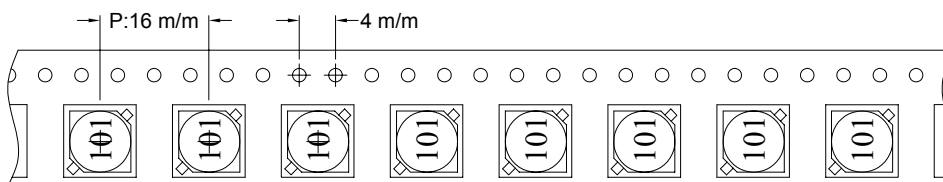


8. PACKAGING INFORMATION :

(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)
PSB1003	1000	900	13-24	4000	7.1	40 x 40 x 24



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9. RELIABILITY 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%	<div>ROOM TEMP. → -25±2°C</div> <div>15 MINUTES 30 MINUTES</div> <div>ROOM TEMP. → 85±2°C</div> <div>15 MINUTES 30 MINUTES</div> 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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SUPERWORLD ELECTRONICS (S) PTE LTD

10. UL CARD :

OBMW2

November 30, 2000

Magnet Wire - Component

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

E201757

Mtl Dsg	Coating Type	TC	ANSI Type	TI
UEW/U	BC 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		H W I	H A I	H V T R	D 4 9 5	C T I
					with Imp	Mech w/o Imp					
Liquid crystal polyester (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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