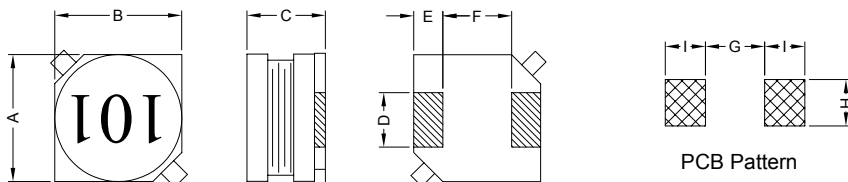


### 1. PART NO. EXPRESSION :

PSB10031R8MZ F  
 (a) (b) (c) (d)(e)(f)

- (a) Series code
- (b) Dimension code
- (c) Inductance code : 1R8 = 1.8uH
- (d) Tolerance code : K = ±10%, L = ±15%, M = ±20%
- (e) X, Y, Z : Standard part
- (f) F : Lead Free

### 2. CONFIGURATION & DIMENSIONS :



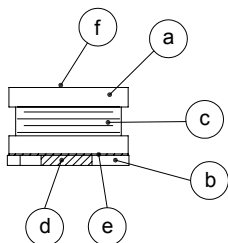
Unit:m/m

A	B	C	D	E	F	G	H	I
10.0±0.3	10.0±0.3	3.0±0.3	2.4±0.2	2.0±0.2	6.0±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 & 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



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

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## 6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance ( $\mu$ 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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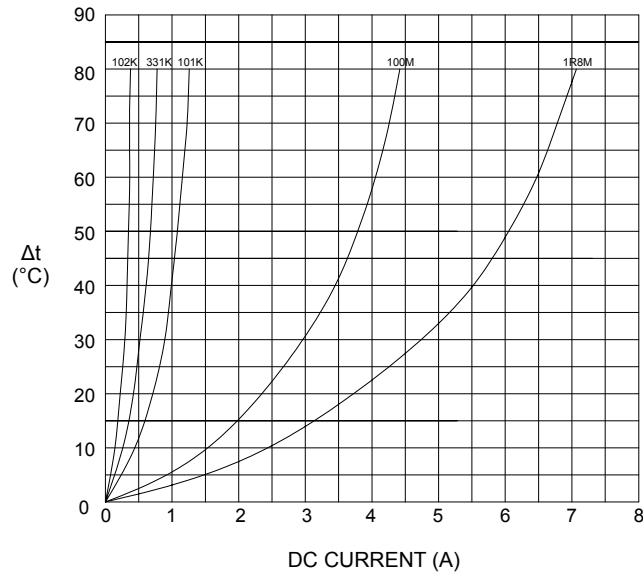


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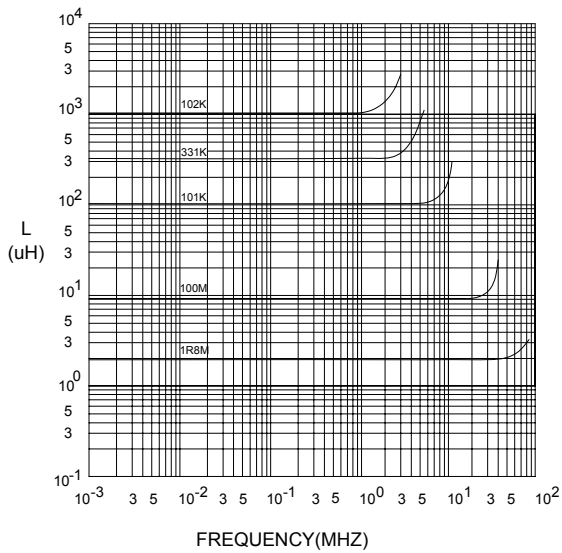
PG. 2

## 7. CHARACTERISTICS CURVES :

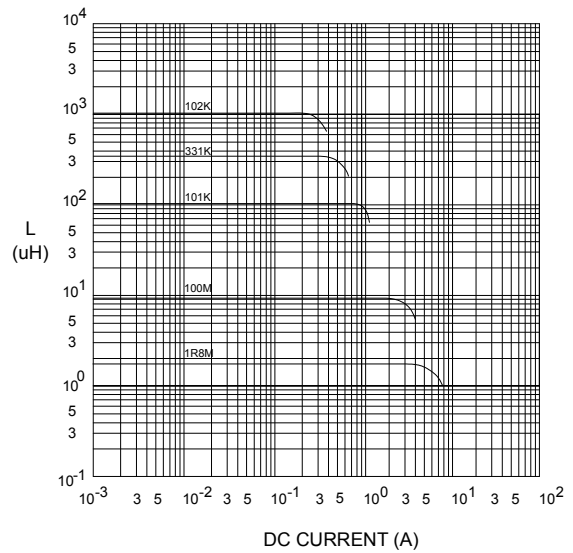
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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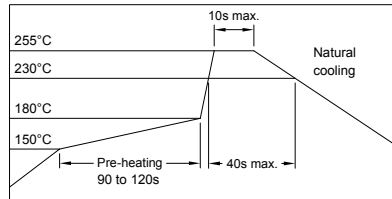
NOTE : Specifications subject to change without notice. Please check our website for latest information.

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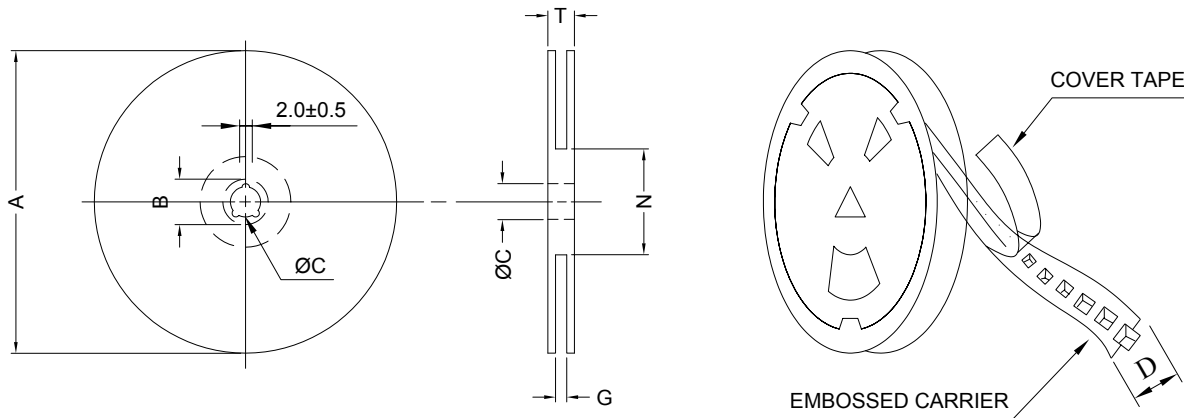
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### RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

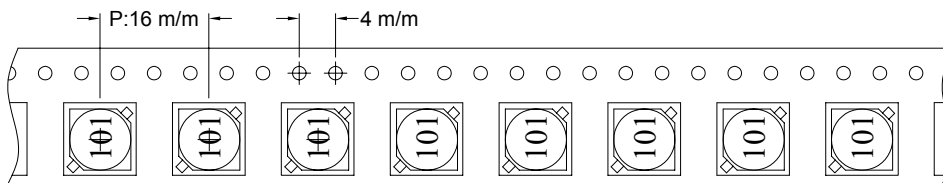


### 8. PACKAGING INFORMATION :

#### ( 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 <sup>+0</sup>	50 <sup>-0</sup>	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%	ROOM TEMP.      →      -25±2°C 15 MINUTES                      30 MINUTES  ROOM TEMP.      →      85±2°C 15 MINUTES                      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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**SUPERWORLD ELECTRONICS (S) PTE LTD**

**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**

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

**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 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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