

1. PART NO. EXPRESSION :

S D B 1 2 0 3 1 R 5 Y Z F
(a) (b) (c) (d)(e)(f)

(a) Series code

(b) Dimension code

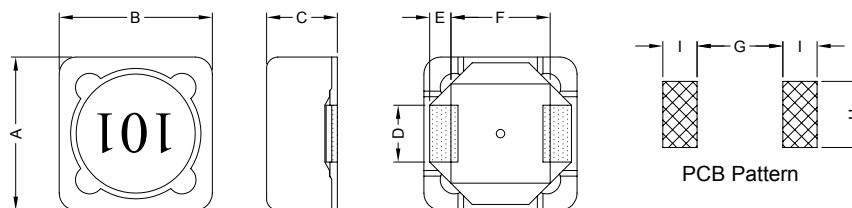
(c) Inductance code : 1R5 = 1.5uH

(d) Tolerance code : M = $\pm 20\%$, Y = $\pm 30\%$

(e) X, Y, Z : Standard part

(f) F : Lead Free

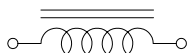
2. CONFIGURATION & DIMENSIONS :



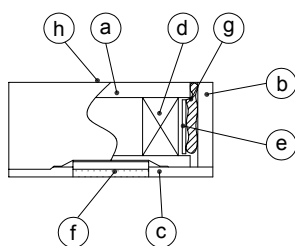
Unit:m/m

A	B	C	D	E	F	G	H	I
12.5 $\pm$ 0.3	12.5 $\pm$ 0.3	3.90 Max.	5.0 $\pm$ 0.2	2.2 $\pm$ 0.2	7.6 $\pm$ 0.2	7.0 Ref.	5.4 Ref.	2.8 Ref.

3. SCHEMATIC :



4. MATERIALS :



(a) Core : DR Ferrite Core

(b) Core : RI Ferrite Core

(c) Base : LCP

(d) Wire : Enamelled Copper Wire

(e) Tape : Mylar Tape

(f) Terminal : Tinned Copper Plate

(g) Adhesive : Epoxy

(h) Ink : Bon Margue

5. GENERAL SPECIFICATION :

a) Temp. rise : 45°C Max.

b) Rated current : Base on temp. rise & $\Delta L/L0A = 20\%$ Max.

c) Storage temp. : -40°C to +125°C

d) Operating temp. : -40°C to +80°C

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



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6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (μ H)	Test Frequency (Hz)	RDC ($m\Omega$) Max.	IDC (A) Max.
SDB12031R5YZF	1.5 $\pm$ 30%	1V / 100K	13	7.80
SDB12032R2YZF	2.2 $\pm$ 30%	1V / 100K	15	6.80
SDB12033R9YZF	3.9 $\pm$ 30%	1V / 100K	26	5.50
SDB12035R6YZF	5.6 $\pm$ 30%	1V / 100K	32	4.80
SDB12038R2YZF	8.2 $\pm$ 30%	1V / 100K	45	4.10
SDB1203100MZF	10.0 $\pm$ 20%	1V / 100K	50	3.90
SDB1203120MZF	12.0 $\pm$ 20%	1V / 100K	60	3.50
SDB1203150MZF	15.0 $\pm$ 20%	1V / 100K	80	3.00
SDB1203180MZF	18.0 $\pm$ 20%	1V / 100K	100	2.70
SDB1203220MZF	22.0 $\pm$ 20%	1V / 100K	110	2.50
SDB1203270MZF	27.0 $\pm$ 20%	1V / 100K	130	2.20
SDB1203330MZF	33.0 $\pm$ 20%	1V / 100K	160	2.10
SDB1203390MZF	39.0 $\pm$ 20%	1V / 100K	180	2.00
SDB1203470MZF	47.0 $\pm$ 20%	1V / 100K	220	1.80
SDB1203560MZF	56.0 $\pm$ 20%	1V / 100K	260	1.60
SDB1203680MZF	68.0 $\pm$ 20%	1V / 100K	310	1.50
SDB1203820MZF	82.0 $\pm$ 20%	1V / 100K	360	1.40
SDB1203101MZF	100.0 $\pm$ 20%	1V / 100K	400	1.30
SDB1203121MZF	120.0 $\pm$ 20%	1V / 100K	530	1.10
SDB1203151MZF	150.0 $\pm$ 20%	1V / 100K	610	1.00
SDB1203181MZF	180.0 $\pm$ 20%	1V / 100K	800	0.90
SDB1203221MZF	220.0 $\pm$ 20%	1V / 100K	970	0.85
SDB1203271MZF	270.0 $\pm$ 20%	1V / 100K	1200	0.75
SDB1203331MZF	330.0 $\pm$ 20%	1V / 100K	1350	0.70



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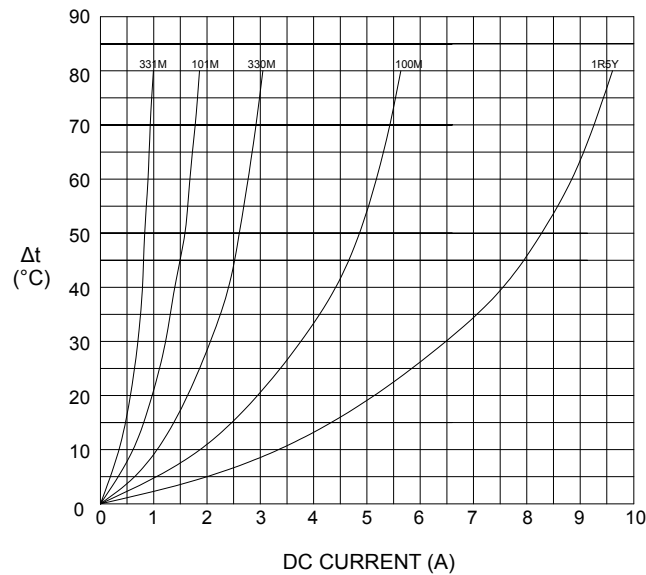
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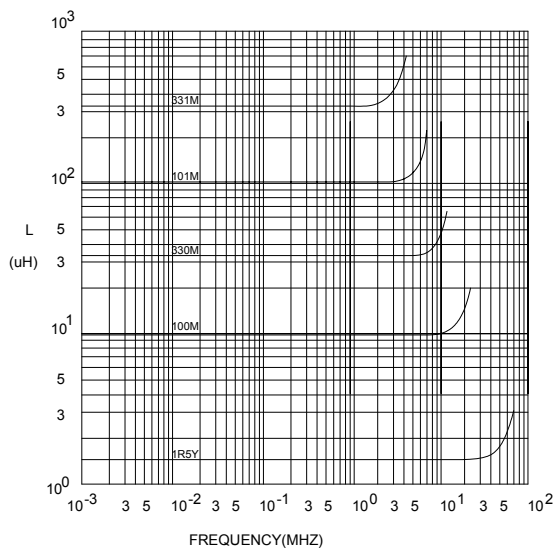
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7. CHARACTERISTICS CURVES :

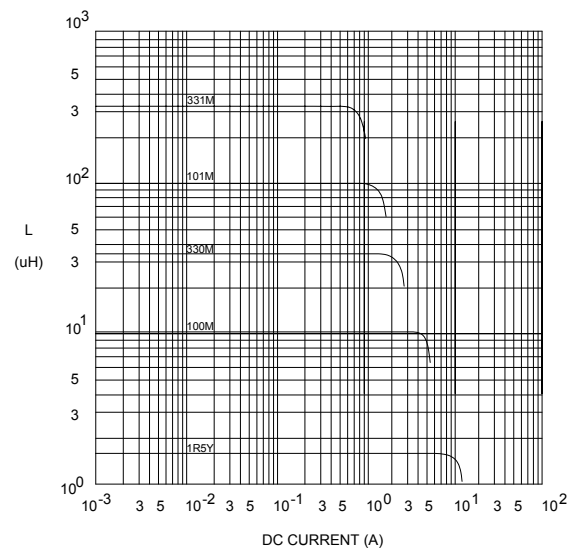
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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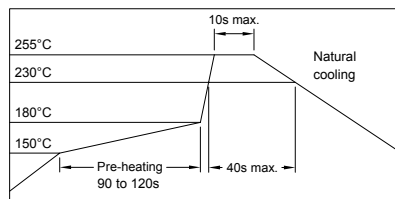
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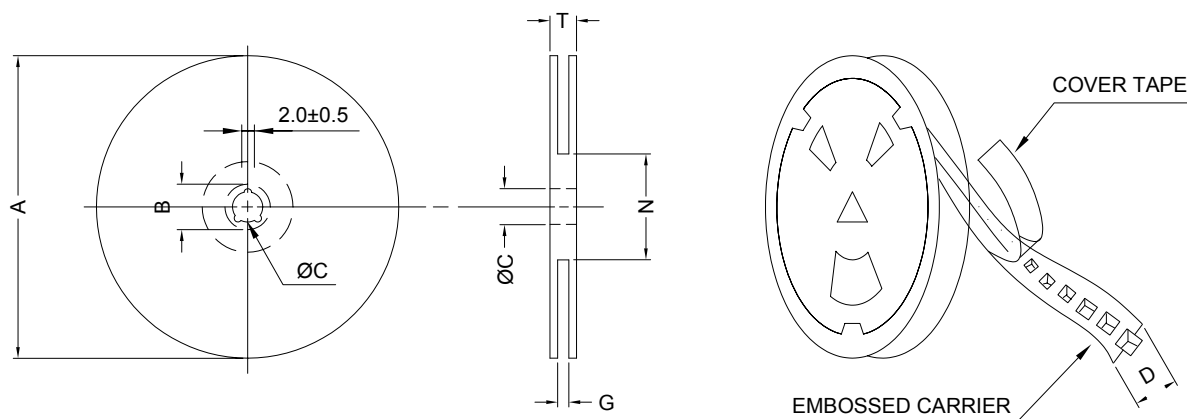
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RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

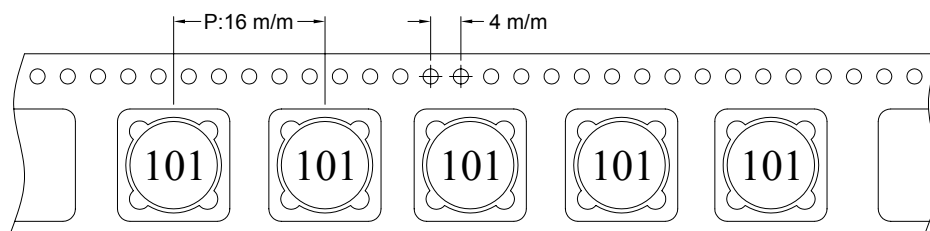


8. PACKAGING INFORMATION :

(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±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)
SDB1203	800	2200	13-24	3200	12.3	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

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	BC	Coating Type	TC	ANSI Type
UEW/U	Polyurethane	—	—	TI 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	



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10. UL CARD :

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		w/o Imp	H W I	H A I	H V T R	D 4 9 5	C T I	
					with Imp	Mech							
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.													

TERAOKA SEISAKUSHO CO LTD										E56086 (S)				
4-22 1-CHOME HIROMACHI SHINAGAWA-KU, TOKYO JAPAN														
Flame retardant aramid paper tape, Cat. Nos. 512F+, 560F+, 565S+, 681S+.														
Flame retardant aramid paper tape, Cat. Nos. 560S+, 561S+, 562S+, rated 200 C.														
Flame retardant acetate cloth tape, Cat. Nos. 570F+, 571F+, 573F+.														
Flame retardant polyester film tape, Cat. Nos. 680F+, 684F.														
Flame retardant glass cloth tape, Cat. Nos. 510F+, 540S+, 541F+, 685S+.														
Flame retardant glass cloth tape, Cat. No. 54S, rated 200 C.														
Flame retardant cotton cloth tape, Cat. Nos. 590F+, 715F+.														
Flame retardant polyimide film tape, Cat. No. 650S+, rated 200 C.														
Flame retardant tellon tape, Cat. Nos. 841+, 846+.														
Flame retardant PVC tape, Cat. Nos. 305F+, 307F+, 380F+.														
Flame retardant polyester fiber tape, Cat. Nos. 511F+, 551F+.														
Flame retardant epoxy varnish impregnated polyester web tape, Cat. Nos. 530F+.														
Flame retardant epoxy varnish impregnated glass paper tape, Cat. No. 531F+.														
Flame retardant copper foil tape, Cat. No. 831S+.														
Flame retardant copper foil tape, Cat. No. 8321+.														
Flame retardant aluminum foil tape, Cat. Nos. 833+, 834+.														
Epoxy varnish impregnated polyester non-woven fabric tape, cat. no. 530F° rated 150 C.														
polyester film tape, Cat. Nos. 631S°, 632S, rated 130 C.														
Flame retardant polyester film tape, Cat. No. 630F°, rated 130 C.														
Flame retardant polyester film/epoxy varnish impregnated polyester fiber tape Cat. No. 673F°, rated 130 C.														
Flame retardant polyester film/epoxy varnish impregnated polyester fiber/polyester film tape, Cat. No. 850F°, rated 130 C.														
° - Subjected to Flame Retardant tests only.														
° - Complies with Flame Retardant requirements when so marked.														
Marking: Company name or "E56086" and catalog designation and "Flame Retardant" if apply, bic. printed on the central paper or outer package.														



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