SMD POWER INDUCTORS

SDB1207(Y) SERIES

1. PART NO. EXPRESSION :

S D B 1 2 0 7 R 4 5 M Y F

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

(a) Series code

(b) Dimension code

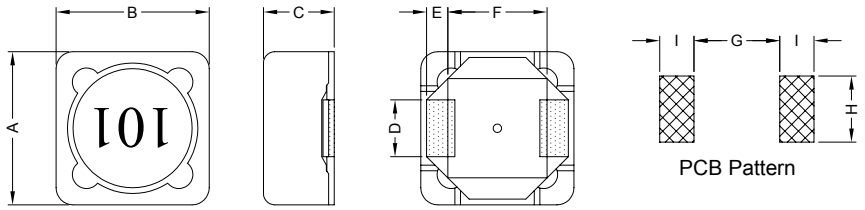
(c) Inductance code : R45 = 0.45uH

(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :

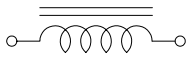


PCB Pattern

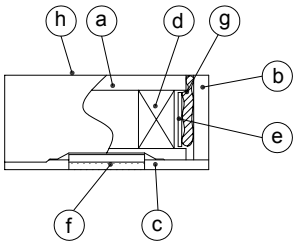
Unit:m/m

A	B	C	D	E	F	G	H	I
12.5±0.3	12.5±0.3	8.00 Max.	5.0±0.2	2.2±0.2	7.6±0.2	7.0 Ref.	5.4 Ref.	2.8 Ref.

3. SCHEMATIC :



4. MATERIALS :



(a) Core : DR Ferrite Core

(b) Core : SI 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 : 40°C Typ. at Irms

b) ΔL/L0A = 10% Typ. at Isat

c) Storage temp. : -40°C to +125°C

d) Operating temp. : -40°C to +85°C

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

RoHS Compliant

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

20.10.2008

6. ELECTRICAL CHARACTERISTICS :

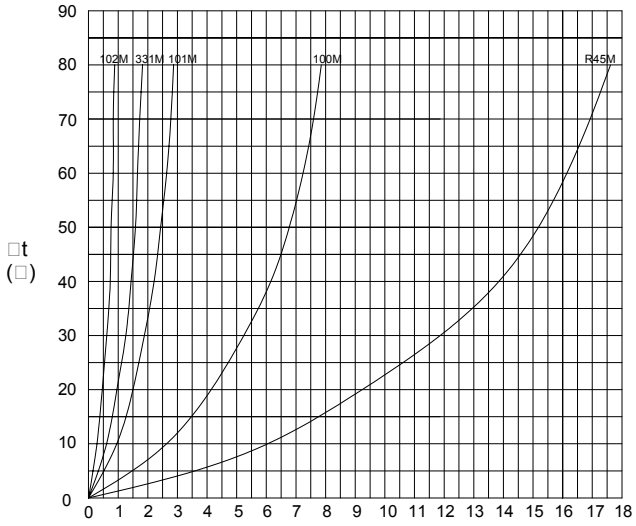
Part No.	Inductance (μH)	Test Frequency (Hz)	RDC (mΩ) Max.	Isat (A)	Irms (A)
SDB1207R45MYF	0.45±20%	0.25V / 100K	3.2	30.00	14.00
SDB1207R82MYF	0.82±20%	0.25V / 100K	5.0	22.00	12.00
SDB12071R5MYF	1.50±20%	0.25V / 100K	5.9	18.00	11.00
SDB12072R2MYF	2.20±20%	0.25V / 100K	7.0	15.00	10.00
SDB12073R3MYF	3.30±20%	0.25V / 100K	7.9	11.00	9.00
SDB12074R7MYF	4.70±20%	0.25V / 100K	9.5	10.00	8.50
SDB12075R6MYF	5.60±20%	0.25V / 100K	11.5	9.00	8.00
SDB12076R8MYF	6.80±20%	0.25V / 100K	12.5	8.00	7.50
SDB12078R2MYF	8.20±20%	0.25V / 100K	19.5	7.30	6.50
SDB1207100MYF	10.00±20%	0.25V / 10K	20.1	6.80	6.00
SDB1207120MYF	12.00±20%	0.25V / 10K	23.2	6.30	5.60
SDB1207150MYF	15.00±20%	0.25V / 10K	31.9	5.80	5.00
SDB1207180MYF	18.00±20%	0.25V / 10K	35.6	5.00	4.60
SDB1207220MYF	22.00±20%	0.25V / 10K	41.0	4.50	4.30
SDB1207270MYF	27.00±20%	0.25V / 10K	52.9	4.00	4.00
SDB1207330MYF	33.00±20%	0.25V / 10K	59.4	3.70	3.50
SDB1207390MYF	39.00±20%	0.25V / 10K	64.8	3.40	3.30
SDB1207470MYF	47.00±20%	0.25V / 10K	90.0	3.20	3.00
SDB1207560MYF	56.00±20%	0.25V / 10K	115.0	3.00	2.65
SDB1207680MYF	68.00±20%	0.25V / 10K	134.0	2.70	2.35
SDB1207820MYF	82.00±20%	0.25V / 10K	146.0	2.40	2.10
SDB1207101MYF	100.00±20%	0.25V / 10K	156.0	2.20	2.00
SDB1207121MYF	120.00±20%	0.25V / 10K	221.0	2.00	1.90
SDB1207151MYF	150.00±20%	0.25V / 10K	246.0	1.80	1.70
SDB1207181MYF	180.00±20%	0.25V / 10K	324.0	1.60	1.50
SDB1207221MYF	220.00±20%	0.25V / 10K	367.0	1.50	1.40
SDB1207271MYF	270.00±20%	0.25V / 10K	425.0	1.30	1.30
SDB1207331MYF	330.00±20%	0.25V / 10K	560.0	1.20	1.10
SDB1207391MYF	390.00±20%	0.25V / 10K	761.0	1.10	1.00
SDB1207471MYF	470.00±20%	0.25V / 10K	855.0	1.00	0.95
SDB1207561MYF	560.00±20%	0.25V / 10K	936.0	0.95	0.90
SDB1207681MYF	680.00±20%	0.25V / 10K	1296.0	0.85	0.80
SDB1207821MYF	820.00±20%	0.25V / 10K	1404.0	0.80	0.70
SDB1207102MYF	1000.00±20%	0.25V / 10K	1620.0	0.70	0.60

RoHS Compliant

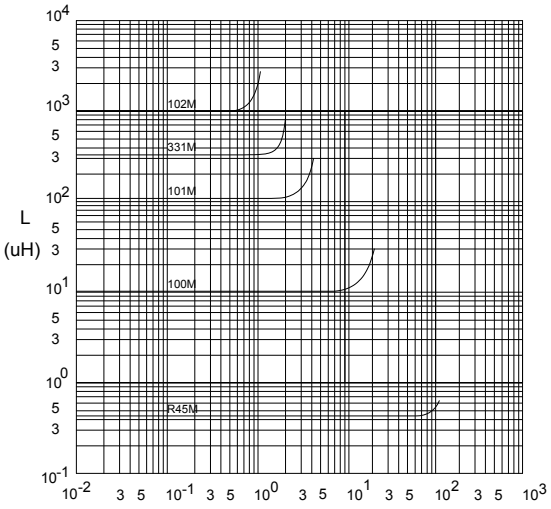
NOTE : Specifications subject to change without notice. Please check our website for latest information.

7. CHARACTERISTICS CURVES :

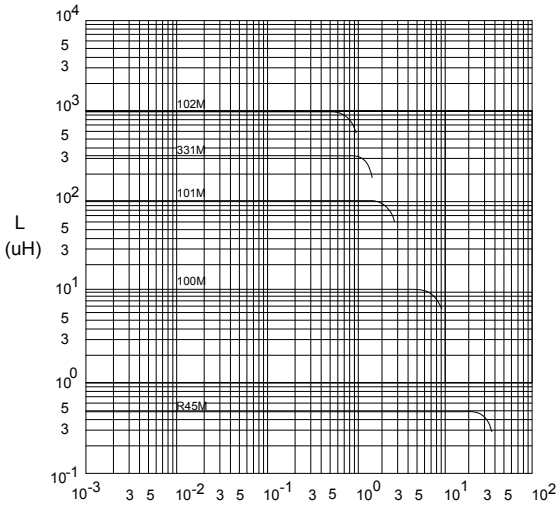
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



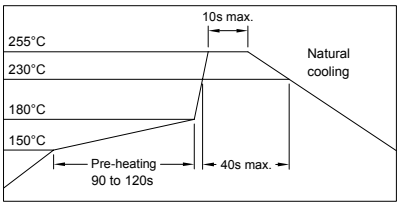
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

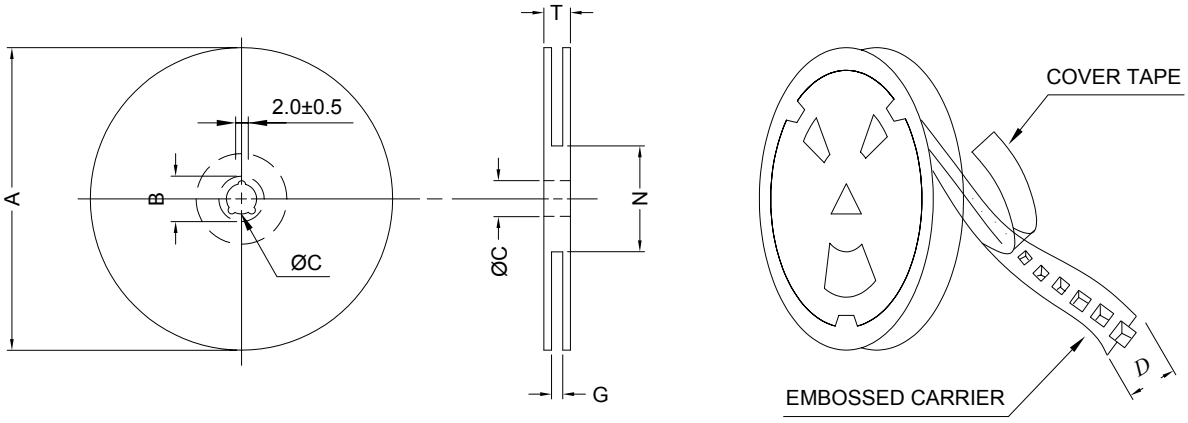
NOTE : Specifications subject to change without notice. Please check our website for latest information.

RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

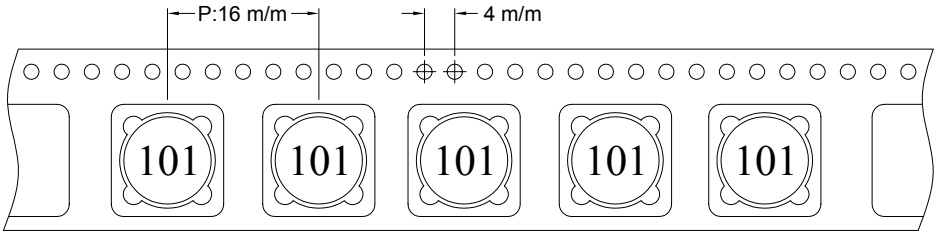


8. PACKAGING INFORMATION :

(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)
SDB1207	400	2100	13-24	1600	11.9	40 x 40 x 24

RoHS Compliant

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

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

RoHS Compliant

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

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	D495	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.

RoHS Compliant

10. UL CARD :

TERAOKA SEISAKUSHO CO LTD E56086 (S)
4-22 1-CHOME HIROMACHI SHINAGAWA-KU, TOKYO
JAPAN

Flame returdant aramid paper tape, Cat. Nos. 512F+, 560F+, 565S+, 681S+.
Flame returdant aramid paper tape, Cat. Nos. 560S+, 561S+, 562S+, rated 200 C.
Flame returdant acetate cloth tape, Cat. Nos. 570F+, 571F+, 573F+.
Flame returdant polyester film tape, Cat. Nos. 680F+, 684F.
Flame returdant glass cloth tape, Cat. Nos. 510F+, 540S+, 541F+, 685S+.
Flame returdant glass cloth tape, Cat. No. 54S, rated 200 C.
Flame returdant cotton cloth tape, Cat. Nos. 590F+, 715F+.
Flame returdant polyimide film tape, Cat. No. 650S+, rated 200 C.
Flame returdant tellon tape, Cat. Nos. 841+, 846+.
Flame returdant PVC tape, Cat. Nos. 305F+, 307F+, 380F+.
Flame returdant polyester fiber tape, Cat. Nos. 511F+, 551F+.
Flame returdant epoxy varnish impregnated polyester web tape, Cat. Nos. 530F+.
Flame returdant epoxy varnish impregnated glass paper tape, Cat. No. 531F+.
Flame returdant copper foil tape, Cat. No. 831S+.
Flame returdant copper foil tape, Cat. No. 8321+.
Flame returdant alumlnum 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 returdant polyester film tape, Cat. No. 630F°, rated 130 C.
Flame returdant polyester film/epoxy varnish impregnated polyester fiber tape Cat. No. 673F°, rated 130 C.
Flame returdant 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 Retardent requirements when so marked.
Mraking: Company name or "E56086" and catalog designation and "Flame Retardent" if applice, bie. brinted on the central paper or outer package.

QMFZ2 January 15, 1991

Component-Plastics

SUMITOMO BAKELITE CO LTD E41429 (M)

(11-cont. from I card)

PM-9630	BK	0.40	94V-0	150	150	150	—	—	—	—	—
		0.51	94V-0	150	150	150	0	0	—	—	—
		3.18	94V-0	150	150	150	0	1	0	4	3
PM-8315	BK	0.50	94V-0	150	150	150	3	0	0	—	—
PM-8315J	BN	0.71	94V-0	150	150	150	2	0	0	—	—
		1.47	94V-0	150	150	150	0	2	0	—	—
		3.05	94V-0	150	150	150	0	1	0	5	4
		6.10	94V-0	150	150	150	0	1	0	5	4
PM-8315K	BK	0.78	94V-1	150	150	150	—	—	—	—	—
		1.52	94V-0	150	150	150	—	—	—	—	—
PM-8320J	BK	0.71	**94HB**	150	150	150	—	—	—	—	—
PM-8330	BK	0.71	94V-1	150	150	150	—	—	—	—	—
		1.57	94V-0	150	150	150	—	—	—	—	—
PM-8400	BK	0.71	**94HB**	150	150	150	—	—	—	—	—
PM-9830	BK	0.69	94V-0	150	150	150	0	0			
		3.18	94V-0	150	150	150	0	0	0	4	3

Reports: March 29, 1985: May 14, 1974: September 16, 1971: September 16, 1971: September 16, 1971: September 16, 1971: March 29, 1985.

Replaces E4142911 dated February 28, 1990. **(Cont. on J card)**

683540014 N7047 Underwriters Laboratories Inc. ® **D11/0043416**

RoHS Compliant

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