SMD POWER INDUCTORS

SDB1003 SERIES

1. PART NO. EXPRESSION :

S D B 1 0 0 3 1 0 1 M Z F

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

(a) Series code

(b) Dimension code

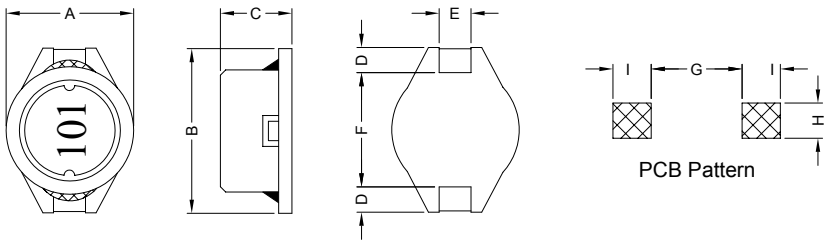
(c) Inductance code : 101 = 100uH

(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

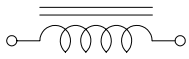
2. CONFIGURATION & DIMENSIONS :



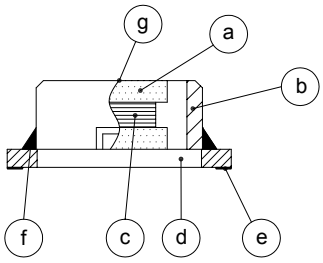
Unit:m/m

A	B	C	D	E	F	G	H	I
10.1±0.2	12.7±0.2	2.7±0.3	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) Core : RI Ferrite Core

(c) Wire : Enamelled Copper Wire

(d) Base : LCP

(e) Terminal : Tinned Copper Plate

(f) Adhesive : Epoxy

(g) 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

RoHS Compliant

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

05.05.2008

6. ELECTRICAL CHARACTERISTICS :

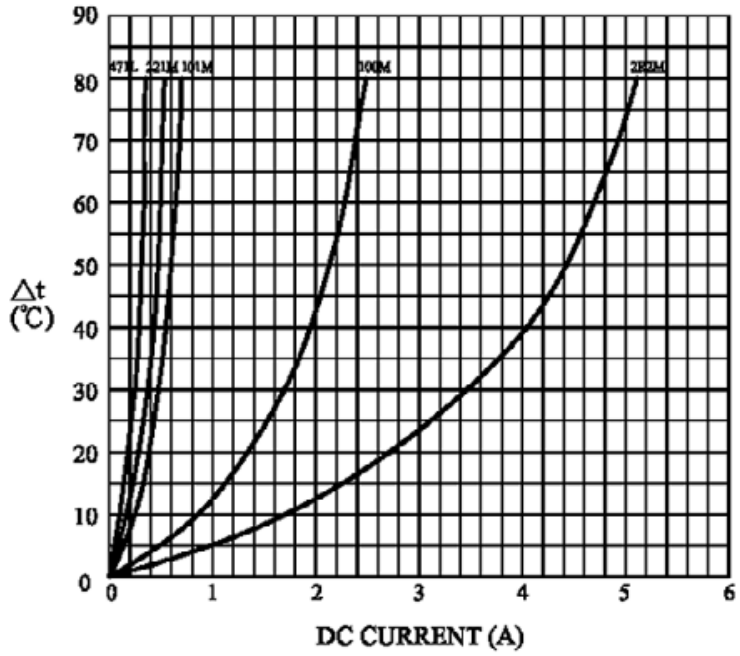
Part No.	Inductance (µH)	Q Ref.	Test Frequency (Hz)	SRF (MHz) Typ.	RDC (mΩ) Max.	IDC (A)
SDB10032R2MZF	2.2±20%	30	1V/100K	90.0	45	3.50
SDB10033R0MZF	3.0±20%	30	1V/100K	70.0	62	3.00
SDB10033R9MZF	3.9±20%	30	1V/100K	60.0	70	2.80
SDB10034R7MZF	4.7±20%	30	1V/100K	50.0	78	2.50
SDB10036R8MZF	6.8±20%	30	1V/100K	50.0	100	2.20
SDB1003100MZF	10.0±20%	30	1V/100K	38.0	145	2.00
SDB1003120MZF	12.0±20%	35	1V/100K	29.0	185	1.75
SDB1003150MZF	15.0±20%	35	1V/100K	30.0	200	1.50
SDB1003180MZF	18.0±20%	35	1V/100K	25.0	270	1.40
SDB1003220MZF	22.0±20%	40	1V/100K	22.0	300	1.30
SDB1003270MZF	27.0±20%	40	1V/100K	18.0	400	1.20
SDB1003330MZF	33.0±20%	40	1V/100K	17.0	450	1.10
SDB1003390MZF	39.0±20%	40	1V/100K	17.0	560	0.95
SDB1003470MZF	47.0±20%	40	1V/100K	15.0	650	0.80
SDB1003560MZF	56.0±20%	40	1V/100K	14.0	680	0.75
SDB1003680MZF	68.0±20%	40	1V/100K	12.0	800	0.70
SDB1003820MZF	82.0±20%	30	1V/100K	11.0	1200	0.65
SDB1003101MZF	100.0±20%	45	1V/100K	9.5	1400	0.60
SDB1003121MZF	120.0±20%	50	1V/100K	8.5	1520	0.55
SDB1003151MZF	150.0±20%	50	1V/100K	8.0	1800	0.50
SDB1003181MZF	180.0±20%	50	1V/100K	7.0	2200	0.45
SDB1003221MZF	220.0±20%	50	1V/100K	6.5	2200	0.40
SDB1003271LZF	270.0±15%	50	1V/100K	5.5	3100	0.35
SDB1003331LZF	330.0±15%	45	1V/100K	5.2	3600	0.30
SDB1003391LZF	390.0±15%	45	1V/100K	5.0	4600	0.25
SDB1003471LZF	470.0±15%	50	1V/100K	4.5	5100	0.20

RoHS Compliant

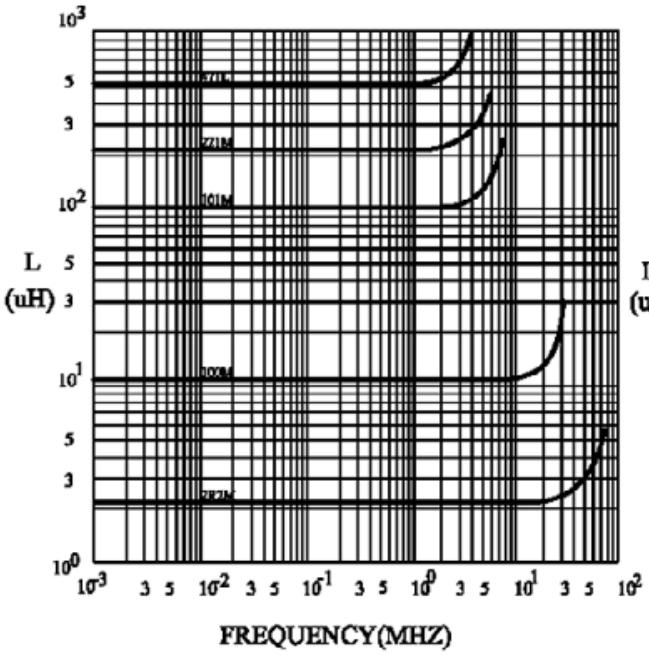
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6. ELECTRICAL CHARACTERISTICS :

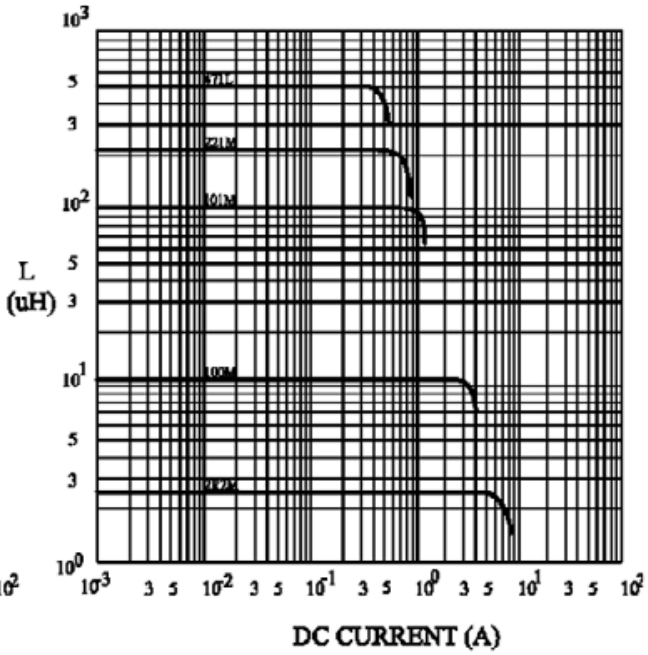
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



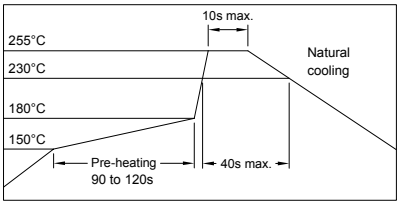
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

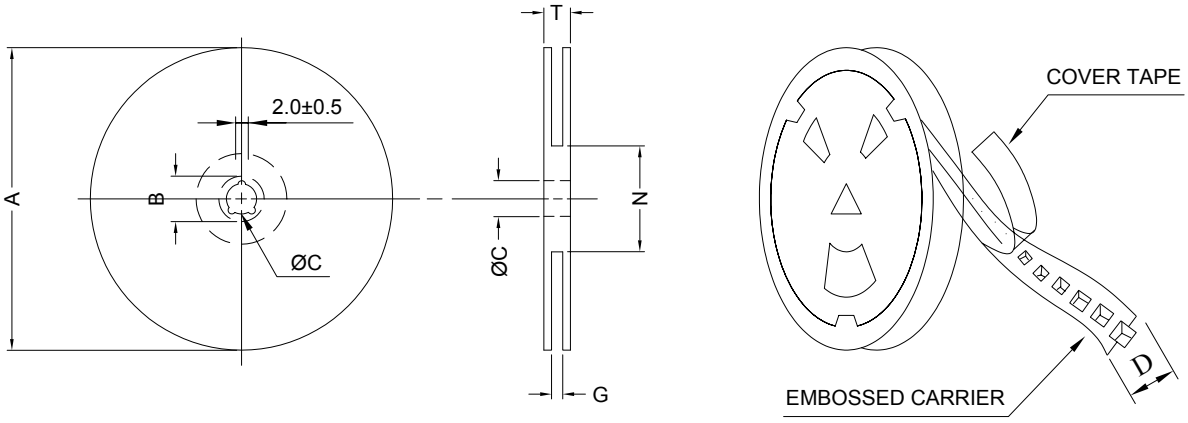
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RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

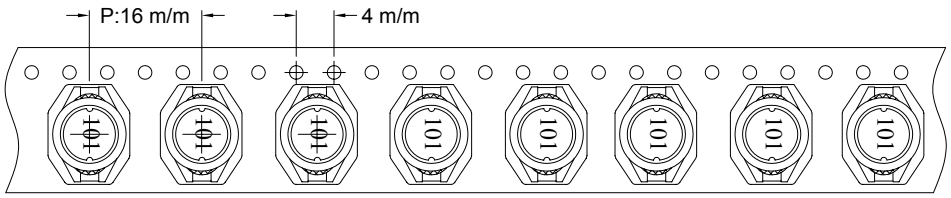


7. PACKAGING INFORMATION :

(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)
SDB1003	1000	1000	13-24	4000	7.5	40 x 40 x 24

RoHS Compliant

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

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