SMD POWER INDUCTORS

SDB0805 SERIES

1. PART NO. EXPRESSION :

S D B 0 8 0 5 1 0 1 M Z F

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

(a) Series code

(b) Dimension code

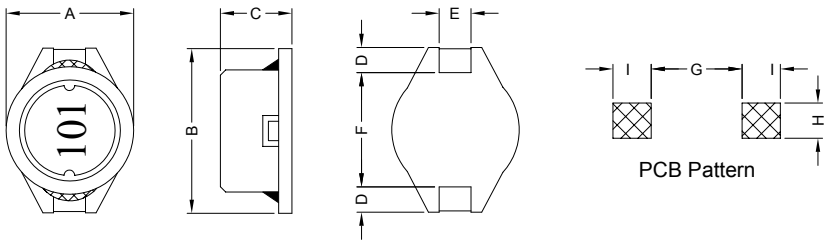
(c) Inductance code : 101 = 100uH

(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

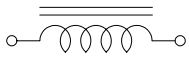
2. CONFIGURATION & DIMENSIONS :



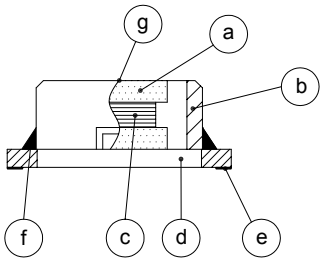
Unit:m/m

A	B	C	D	E	F	G	H	I
8.0±0.2	10.5±0.2	4.5±0.3	2.1±0.2	2.0±0.2	6.0±0.3	5.7 Ref.	2.2 Ref.	2.4 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

Pb

RoHS Compliant

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

05.05.2008

6. ELECTRICAL CHARACTERISTICS :

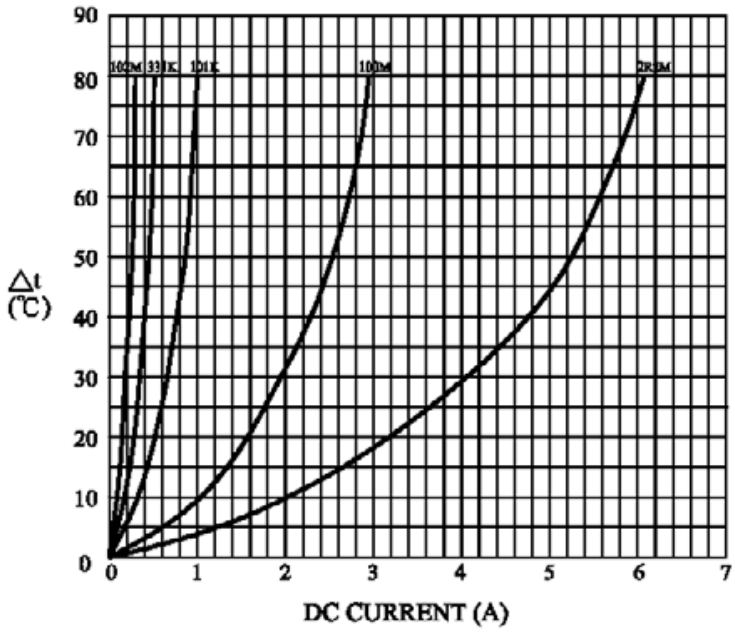
Part No.	Inductance (μH)	Q Ref.	Test Frequency (Hz)	SRF (MHz) Typ.	RDC (mΩ) Max.	IDC (A)
SDB08052R2MZF	2.2±20%	60	1V/100K	75.0	40	2.50
SDB08053R9MZF	3.9±20%	60	1V/100K	50.0	55	2.10
SDB08055R6MZF	5.6±20%	60	1V/100K	40.0	65	1.95
SDB08058R2MZF	8.2±20%	60	1V/100K	32.0	80	1.75
SDB0805100MZF	10.0±20%	50	1V/100K	28.0	100	1.50
SDB0805120MZF	12.0±20%	50	1V/100K	24.0	120	1.40
SDB0805150MZF	15.0±20%	50	1V/100K	22.0	140	1.30
SDB0805180LZF	18.0±15%	50	1V/100K	19.0	160	1.20
SDB0805220LZF	22.0±15%	50	1V/100K	17.0	180	1.10
SDB0805270LZF	27.0±15%	50	1V/100K	15.5	200	1.00
SDB0805330LZF	33.0±15%	60	1V/100K	13.5	240	0.92
SDB0805390LZF	39.0±15%	60	1V/100K	12.0	260	0.84
SDB0805470LZF	47.0±15%	60	1V/100K	10.5	280	0.75
SDB0805560MZF	56.0±10%	60	1V/100K	9.5	380	0.68
SDB0805680MZF	68.0±10%	70	1V/100K	9.0	440	0.60
SDB0805820MZF	82.0±10%	70	1V/100K	8.5	550	0.54
SDB0805101MZF	100.0±10%	70	1V/100K	7.5	600	0.50
SDB0805121MZF	120.0±10%	70	1V/100K	7.0	750	0.45
SDB0805151MZF	150.0±10%	70	1V/100K	6.5	900	0.40
SDB0805181MZF	180.0±10%	70	1V/100K	4.8	1050	0.35
SDB0805221MZF	220.0±10%	80	1V/100K	4.5	1180	0.30
SDB0805271MZF	270.0±10%	90	1V/100K	4.2	1400	0.27
SDB0805331MZF	330.0±10%	90	1V/100K	3.8	1800	0.24
SDB0805391MZF	390.0±10%	80	1V/100K	3.6	2100	0.22
SDB0805471MZF	470.0±10%	80	1V/100K	3.5	2250	0.20
SDB0805561MZF	560.0±10%	100	1V/100K	3.0	3000	0.18
SDB0805681MZF	680.0±10%	90	1V/100K	2.8	3400	0.17
SDB0805821MZF	820.0±10%	90	1V/100K	2.5	4000	0.16
SDB0805102MZF	1000.0±10%	90	1V/100K	2.2	5000	0.15

RoHS Compliant

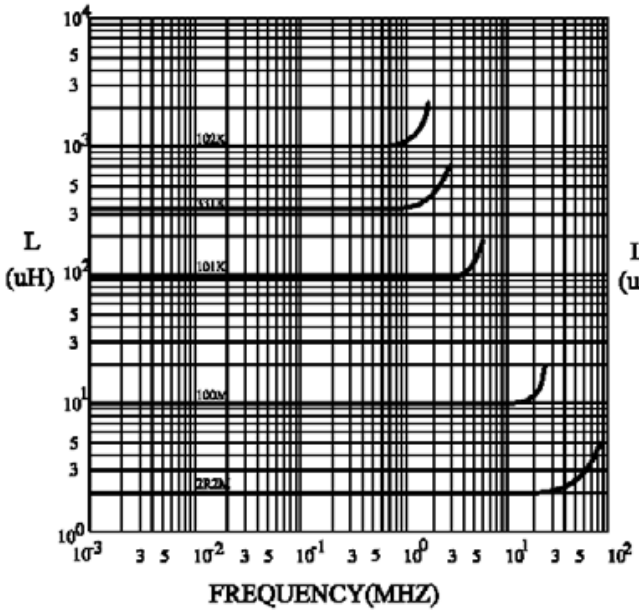
NOTE : Specifications subject to change without notice. Please check our website for latest information.

6. ELECTRICAL CHARACTERISTICS :

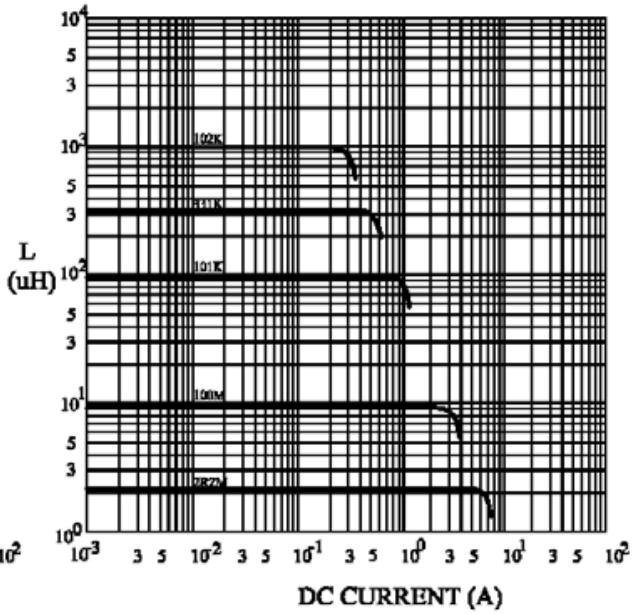
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



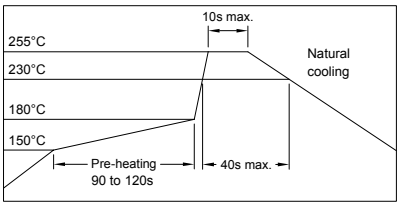
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

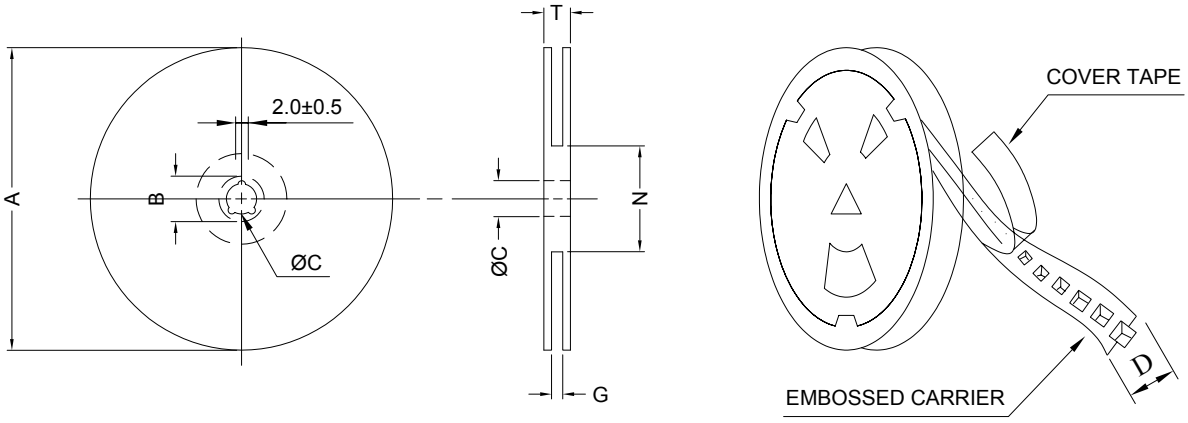
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RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

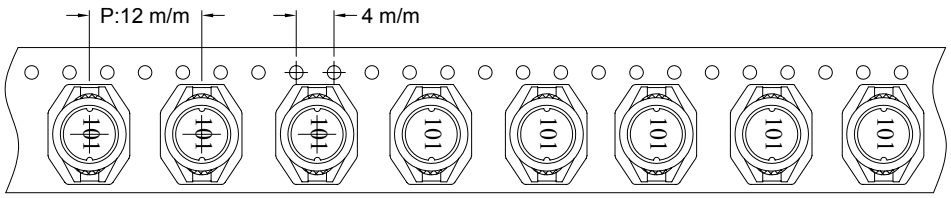


7. PACKAGING INFORMATION :

(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)
SDB0805	1000	1100	13-24	4000	7.9	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