SMD POWER INDUCTORS

SDB1205 SERIES

1. PART NO. EXPRESSION :

S D B 1 2 0 5 1 R 5 Y Z F

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

(a) Series code

(b) Dimension code

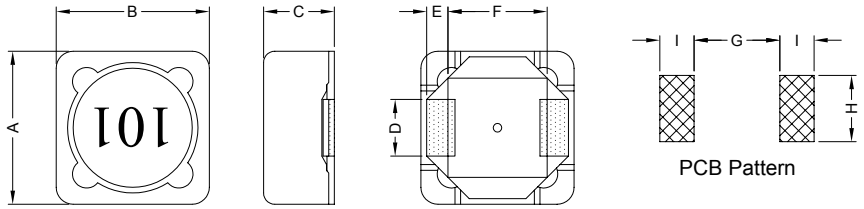
(c) Inductance code : 1R5 = 1.5uH

(d) Tolerance code : M = ±20%, Y = ±25%

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :

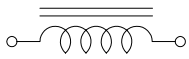


PCB Pattern

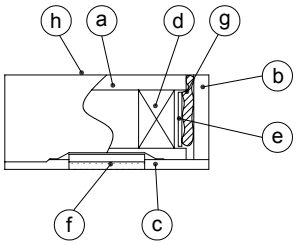
Unit:m/m

A	B	C	D	E	F	G	H	I
12.5±0.3	12.5±0.3	6.00 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 Max.

b) Rated current : Base on temp. rise & ΔL/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

RoHS Compliant

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

07.05.2008

6. ELECTRICAL CHARACTERISTICS :

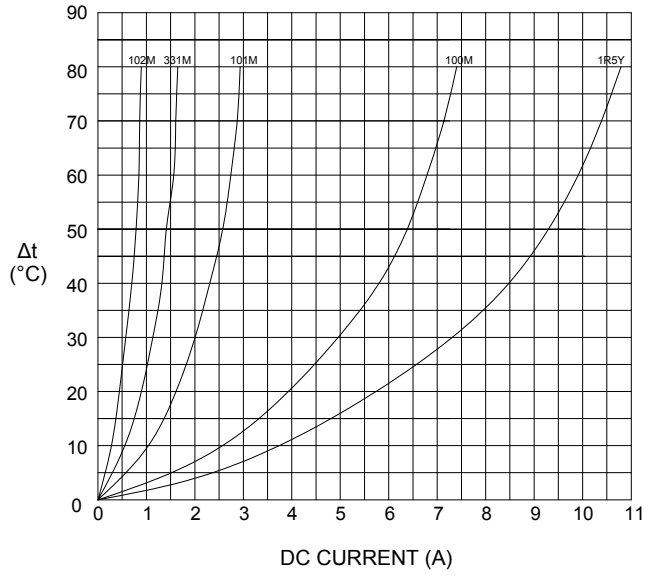
Part No.	Inductance (μH)	Test Frequency (Hz)	RDC (mΩ) Max.	IDC (A) Max.
SDB12051R5YZF	1.5±25%	1V / 100K	12	8.00
SDB12052R2YZF	2.2±25%	1V / 100K	14	7.00
SDB12053R1YZF	3.1±25%	1V / 100K	17	6.00
SDB12054R4YZF	4.4±25%	1V / 100K	20	5.00
SDB12055R2YZF	5.2±25%	1V / 100K	21	4.40
SDB12057R5YZF	7.5±25%	1V / 100K	24	4.20
SDB1205100MZF	10.0±20%	1V / 1K	25	4.00
SDB1205120MZF	12.0±20%	1V / 1K	27	3.50
SDB1205150MZF	15.0±20%	1V / 1K	30	3.30
SDB1205180MZF	18.0±20%	1V / 1K	34	3.00
SDB1205220MZF	22.0±20%	1V / 1K	36	2.80
SDB1205270MZF	27.0±20%	1V / 1K	51	2.30
SDB1205330MZF	33.0±20%	1V / 1K	57	2.10
SDB1205390MZF	39.0±20%	1V / 1K	68	2.00
SDB1205470MZF	47.0±20%	1V / 1K	75	1.80
SDB1205560MZF	56.0±20%	1V / 1K	110	1.70
SDB1205680MZF	68.0±20%	1V / 1K	120	1.50
SDB1205820MZF	82.0±20%	1V / 1K	140	1.40
SDB1205101MZF	100.0±20%	1V / 1K	160	1.30
SDB1205121MZF	120.0±20%	1V / 1K	170	1.10
SDB1205151MZF	150.0±20%	1V / 1K	230	1.00
SDB1205181MZF	180.0±20%	1V / 1K	290	0.90
SDB1205221MZF	220.0±20%	1V / 1K	400	0.80
SDB1205271MZF	270.0±20%	1V / 1K	460	0.75
SDB1205331MZF	330.0±20%	1V / 1K	510	0.68
SDB1205391MZF	390.0±20%	1V / 1K	690	0.65
SDB1205471MZF	470.0±20%	1V / 1K	770	0.58
SDB1205561MZF	560.0±20%	1V / 1K	860	0.54
SDB1205681MZF	680.0±20%	1V / 1K	1200	0.48
SDB1205821MZF	820.0±20%	1V / 1K	1340	0.43
SDB1205102MZF	1000.0±20%	1V / 1K	1530	0.40

RoHS Compliant

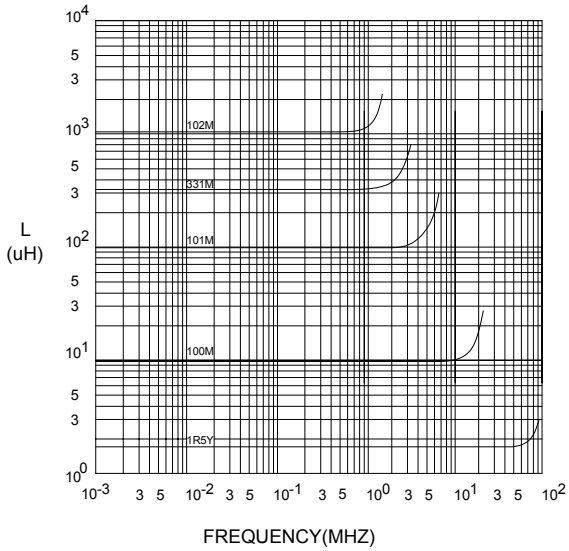
NOTE : Specifications subject to change without notice. Please check our website for latest information.

7. CHARACTERISTICS CURVES :

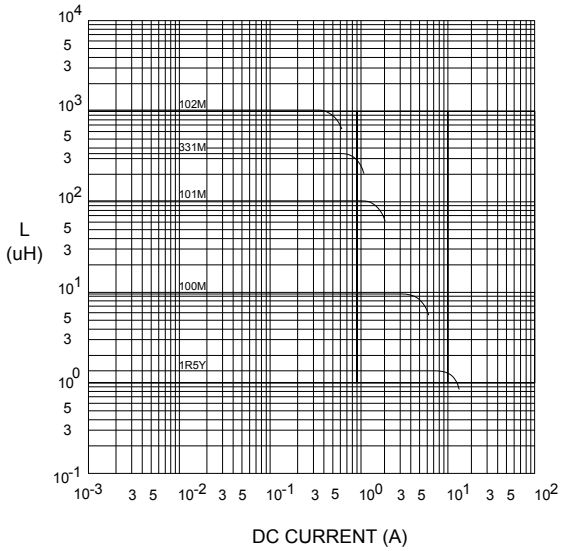
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



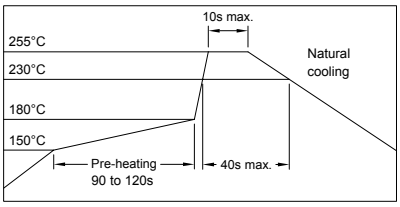
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

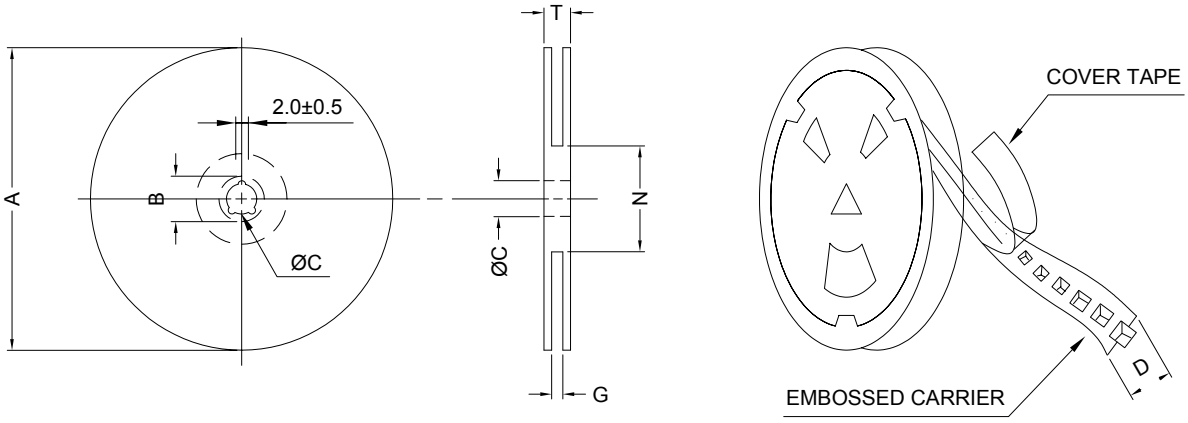
NOTE : Specifications subject to change without notice. Please check our website for latest information.

RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

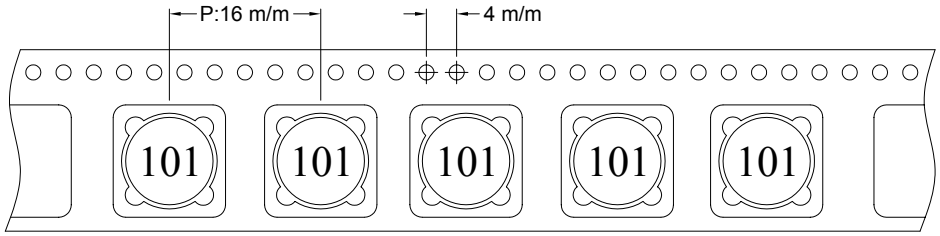


8. PACKAGING INFORMATION :

(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)
SDB1205	600	1900	13-24	2400	11.1	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.

OANZ2 August 7, 1989
Component-Insulating Tape

FOUR PILLARS ENTERPRISE CO LTD E50292 (S)
NO 18 HENGYANG RD , TAIPEI TAIWAN (A card)

Flame retardant polyvinyl chtarlde tape, Cat. No. 33047+.
Polyester film tape, Cat. No. 35660°rated 130C.
Flame retardant double sided acrylic tape, Cat. No. DS31+.
Arme paper tape, Cat. No. NM130°rated 155C.
Glass cloth backing with silicone adhesive, Cat. No. GL06°rated 180C.
Glass cloth backing with acrylic adhesive, Cat. No. GL15 rated 155C.
Glass cloth backing with rubber adhesive, Cat. No. GL27 rated 130C.
Polyesterfilm insulating tape with acrylic adhesive, Cat. No. MY130 rated 130C.
Polyesterfilm insulating tape with silicone base adhesive, Cat. No. KA180°rated 180C.
Acetate cloth backing with acrylic base adhesive, Cat. No. AC0 rated 130C.

Reports: March 25, 1985; March 26, 1985; March 27, 1985; March 7, 1986; July 2, 1987; July 2, 1987; July 2, 1987; March 9, 1989; March 10, 1989; August 15, 1989.

Replaces E50292A dated Febuary 28, 1989.
(Cont. on B card)
369021002 Underwriters Laboratories Inc.®
D11/0114874
51

RoHS Compliant

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

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9