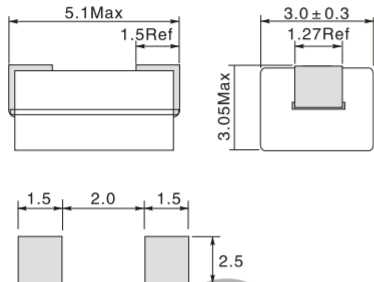
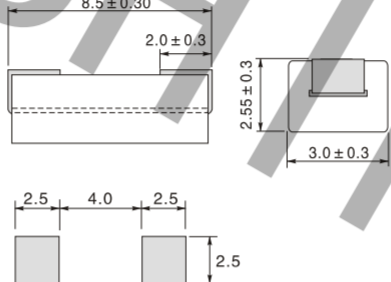
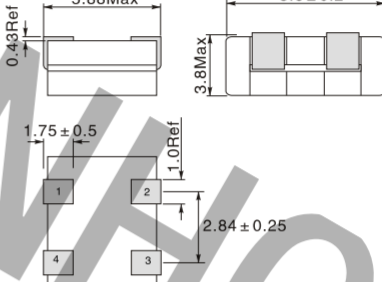


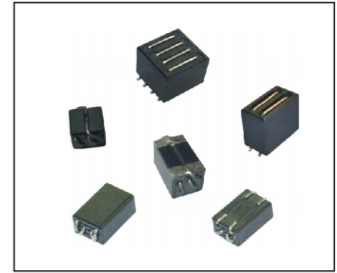
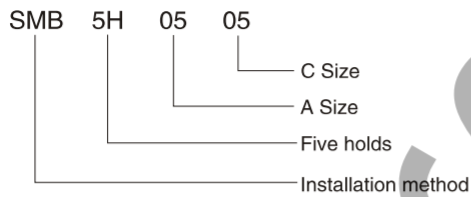
HIGH CURRENT FERRITE BEADS FOR EMI SUPPRESSION (SMB SERIES)

Type

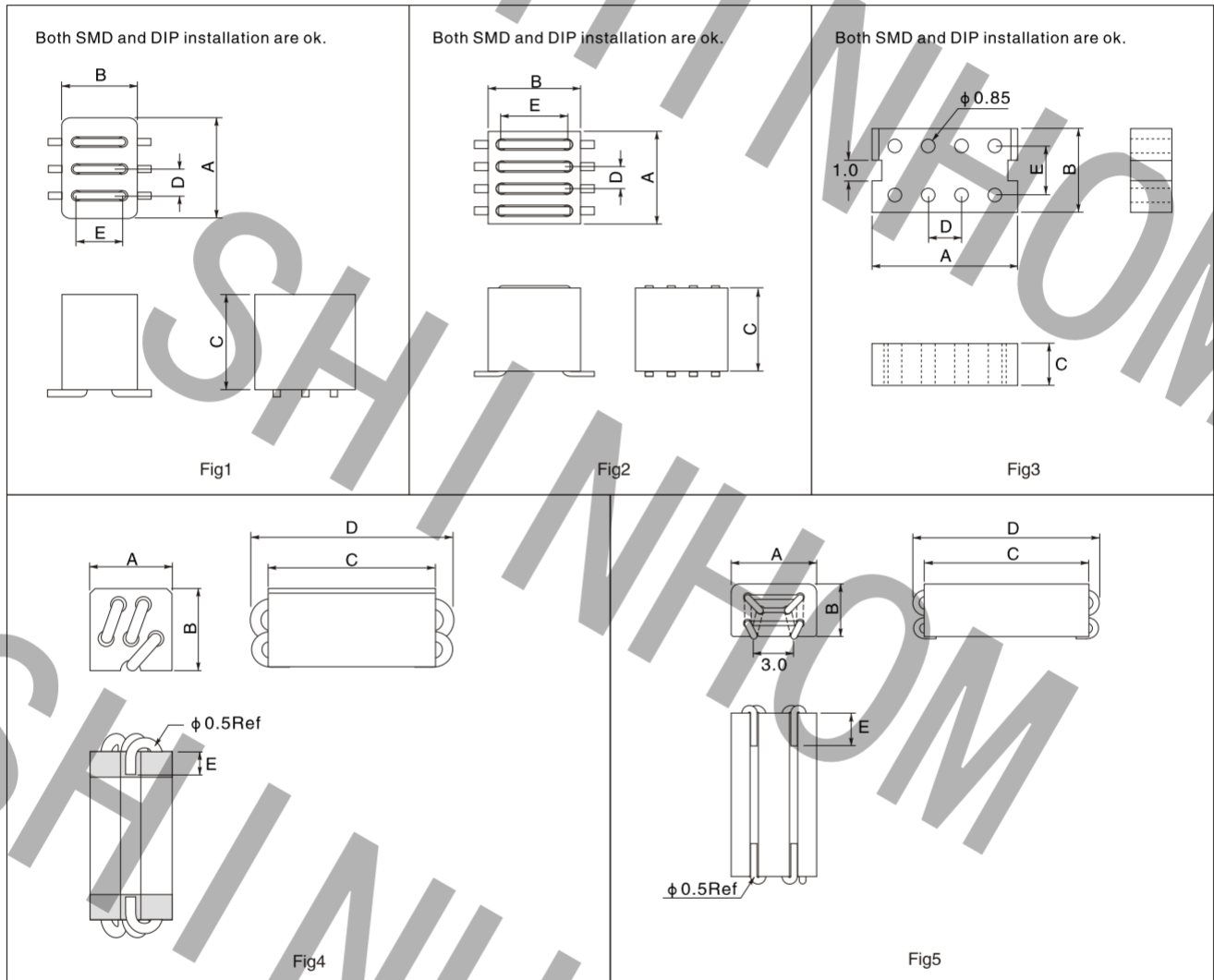
Type	 SMB403025-45	Type	 SMB853025-75	Type	 SMB564725-25
Z@25MHz	30Ω Min	Z@25MHz	50Ω Min	Z@25MHz	15Ω Min
Z@100MHz	49Ω Min	Z@100MHz	76Ω Min	Z@100MHz	25Ω Min
Rated current	9A max.	Rated current	5A max.	Rated current	15A max.
  					

MULTILINE SUPPRESSOR BEADS(_ H)

Ordering code



CONFIGURATIONS(mm)



DIMENSION OF MAIN PRODUCTIONS & IMPEDANCE@25°C

Part No.	Fig.	A	B	C	D	E	IMPEDANCE	
							25MHz(Ω)	100MHz(Ω)
SMB3H0607	5	6.5±0.25	4.0±0.25	7.0±0.3	10.0±0.3	2.5±0.5	75	141
SMB3H0610	5	6.5±0.25	4.0±0.25	10.0±0.3	13.0±0.3	3.25±0.75	109	213
SMB(DIP)6H0710	1	7.6±0.25	5.0±0.2	10.0±0.25	2.54±0.1	2.54±0.1	216	253
SMB(DIP)8H1002	3	10.2±0.3	6.0±0.2	2.6±0.15	2.54±0.1	2.54±0.1	48	73
SMB(DIP)8H1110	2	11.2±0.3	11.2±0.3	10.2±0.25	2.54±0.1	7.62±0.1	239	337
SMB5H0508	4	5.0±0.25	5.0±0.25	8.5±0.3	11.0±0.3	2.0±0.5	435	580

SMD EMI SUPPRESSION 5-HOLE FERRITE BEAD

SMB5H SERIES

FEATURES:

- High Current rating
- Low DCR and high IDC beads inductor
- Compact and simple design with high reliability
- Very good SMD solution for traditional wide band choke
- Through-hole axial ferrite beads for EMI suppression
- Surface-mount wire wound beads with high frequency and EMI suppression

APPLICATIONS:

- Modems, PDP, LCD, and TVs converters
- Mobile radios, DC/DC converters
- Noise filtering devices
- Track and SCR control circuits
- Wireless communication equipments
- Computer disk drive and PC board to filter the EMI from outside sources such as car radios, mobile phones and VCRs



DIMENSIONS:(mm)

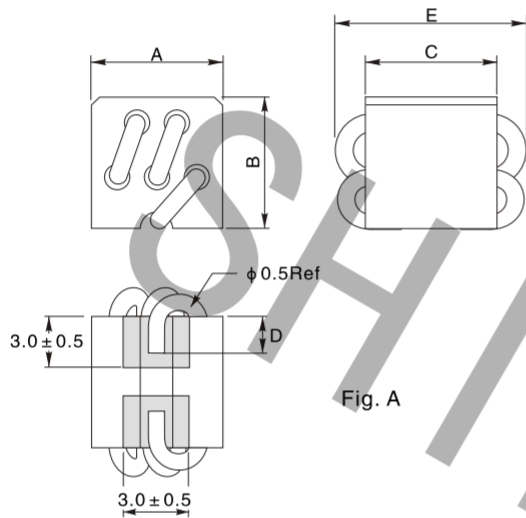


Fig. A

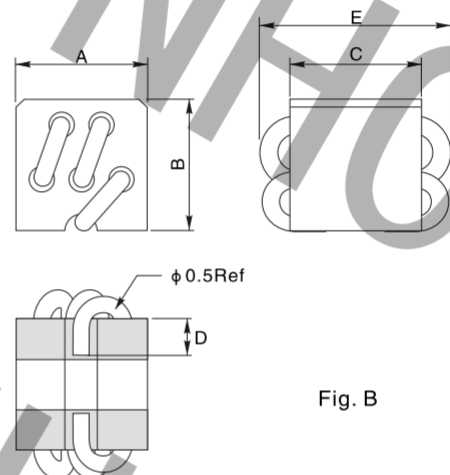


Fig. B

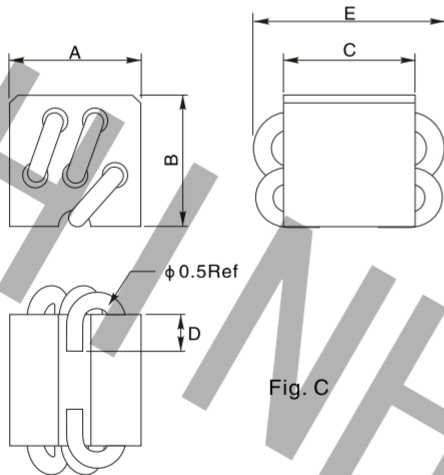


Fig. C

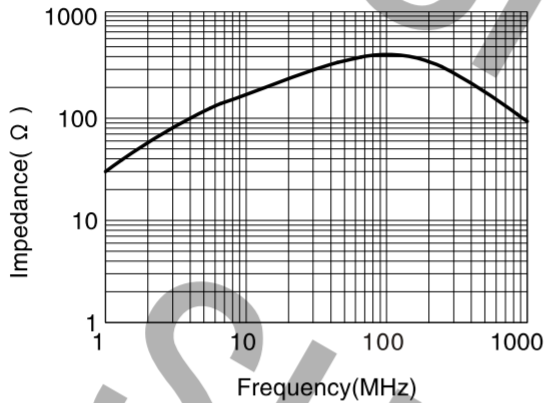
Part No.	A	B	C	D	E	Winding	Fig.
SMB5H0505C-2.5Ts	5.0 ± 0.25	5.0max	5.5 ± 0.3	2.0min	8.0max	φ 0.5mm*2.5Ts	C
SMB5H0505B-2.5Ts	5.0 ± 0.5	4.6 ± 0.5	5.5 ± 0.5	2.0max	8.0max	φ 0.5mm*2.5Ts	B
SMB5H0508C-2.5Ts	5.0 ± 0.25	5.0max	8.5 ± 0.3	3.5max	11.0max	φ 0.5mm*2.5Ts	C
SMB5H0508B-2.5Ts	5.0 ± 0.5	4.65 ± 0.5	8.5 ± 0.5	2.0 ± 0.5	11.0max	φ 0.5mm*2.5Ts	B
SMB5H0508A-2.5Ts	5.0 ± 0.5	4.65 ± 0.5	8.5 ± 0.5	2.0min	11.0max	φ 0.5mm*2.5Ts	A

SMD EMI SUPPRESSION 5-HOLE FERRITE BEAD

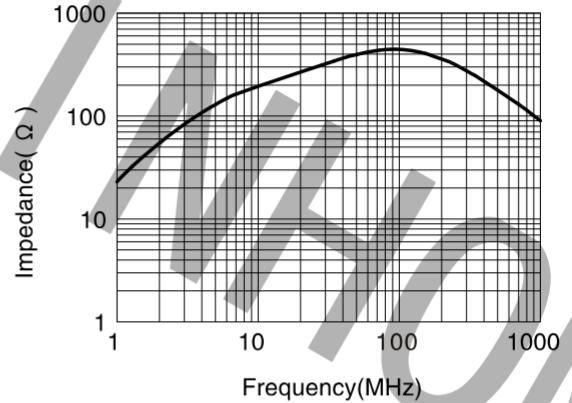
SMB5H SERIES

IMPEDANCE VS FREQUENCY CURVE

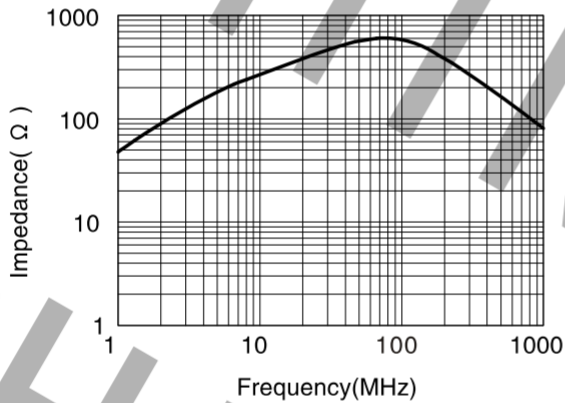
SMB5H0505C-2.5Ts



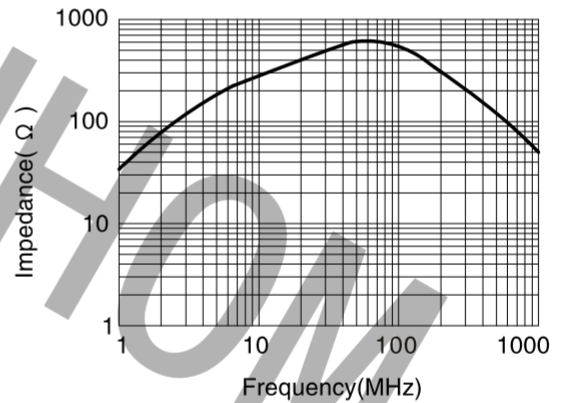
SMB5H0505B-2.5Ts



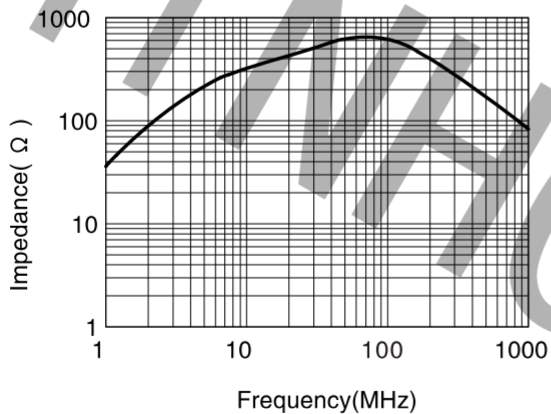
SMB5H0508C-2.5Ts



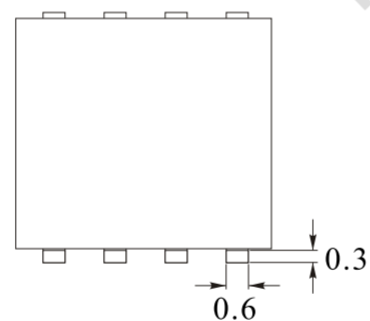
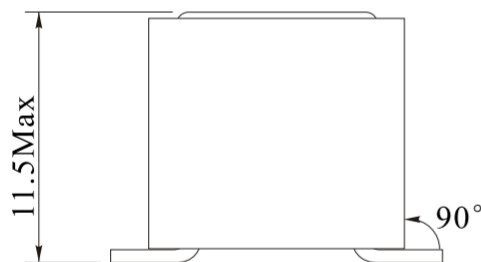
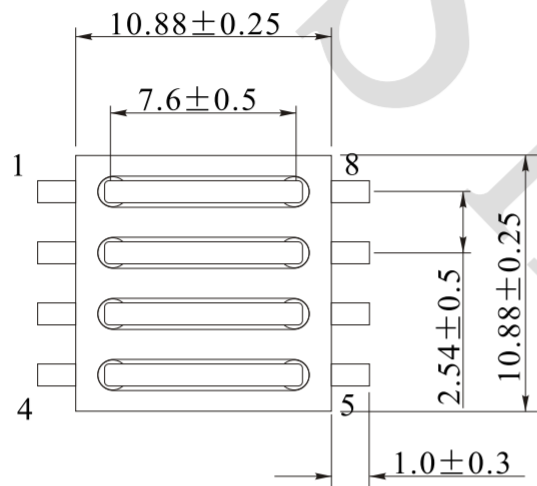
SMB5H0508B-2.5Ts



SMB5H0508A-2.5Ts

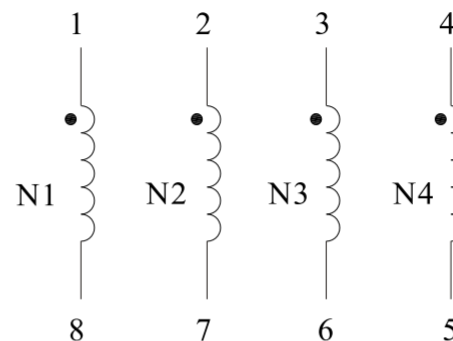


1. PHYSICAL CHARACTERISTICS (mm)



Remark : 1. Pin Angle is 90°
2. Ferrite bead bottom is flat

2. ELECTRONICAL SCHEMATIC



3. ELECTRONICAL SPECIFICATIONS

Impedance: 115 Ω Min@25MHz

170 Ω Min@100MHz

DCR: 15m Ω Max

Rated voltage: 50V Max

Max. Current: 6.0A

Test Instrument:

/Z/: HP4291A

RDC: HM2540

NOTES:

Temp 20°C 48%RH
RoHS Compliant

The Document property belong
to SHINHOM & is not allowed to be
duplicated without authorization

NAME:	SMD Ferrite bead array		
CUSTOMER P/N:		DATE:	2014-06-03
SHINHOM P/N:	SMB1010-4W	REV: A1	PAGE
DRAWN	CHECKED BY	APPROVE BY	



SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

MULTI-PHASE POWER INDUCTORS

SMBXX1208 SERIES

FEATURES:

- High current multi-phase inductor
- 100 nH per phase coupled inductor
- 12 mm wide x 8.5 mm high footprint surface mount package with 12.5 mm, 18.5 mm, 24.5 mm and 36.5 mm lengths
- Ferrite core material
- Moisture Sensitivity Level (MSL): 1

APPLICATIONS:

- For exclusive use with Maxim? Multi-phase controllers
- Voltage Regulator Modules (VRMs) and high power density VRMs
- Server and desktop
- Central processing unit (CPU)
- Graphics processing unit (GPU)
- Application specific integrated circuit (ASIC)
- Data networking and storage systems
- High current Point-of-Load (POL) modules
- Vcore regulators



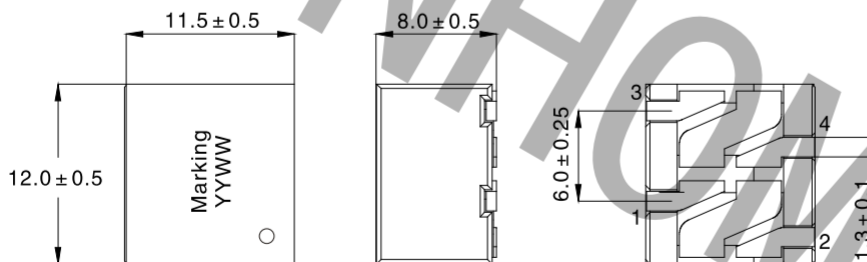
ELECTRICAL CHARACTERISTICS:

Part Number	Inductance Phases	OCL(uH)		FLL(uH) Min.	Isat 1 (A)	DCR (mΩ)Max	SCL ±20%	Isat 2 (A)	Marking
		Typ.	Min.						
SMB121208-2W-R10M	2	0.4	0.36	0.32	15	0.45	0.1	56	R10
SMB181208-3W-R10M	3	0.4	0.36	0.32	15	0.45	0.1	56	R10
SMB241208-4W-R10M	4	0.4	0.36	0.32	15	0.45	0.1	56	R10
SMB361208-6W-R10M	6	0.4	0.36	0.32	15	0.45	0.1	56	R10

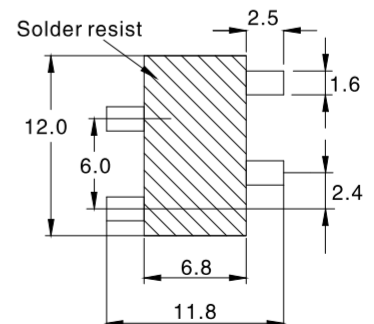
1. Open Circuit Inductance (OCL) Test Parameters: 1.0 MHz/0.1 Vrms, 0.0 Adc, +105°C
2. Full Load Inductance (FLL) Test Parameters: 1.0 MHz/0.1 Vrms, Isat1, +105 °C
3. Short Circuit Inductance (SCL) Test Parameters: 1.0 MHz/0.1 Vrms, 0.0 Adc, +105 °C
SMD121208-2W-R10M Test :short (1 & 4), measure (2 & 3), and divide by 2
SMD181208-2W-R10M Test : short (1 & 4), (3 & 6), measure (2 & 5), and divide by 3
SMD241208-2W-R10M Test : short (1 & 4), (3 & 6), (5 & 8) measure (2 & 7), and divide by 4
SMD361208-2W-R10M Test :short (1 & 4), (3 & 6), (5 & 8), (7 & 10), (9 & 12) measure (2 & 11), and divide by 6
4. DCR +20 °C TEST, Each winding
5. Isat2: Based on inductance change ($\Delta L/L_0$: drop 20% Typ.) @ +105 °C
6. The specs are guaranteed at room temp as tested in production and other parameters are guaranteed by design.
7. Storage temperature range (Component): -40 °C to +125°C
8. Operating temperature range: -40°C to +125 °C(ambient plus self-temperature rise)
9. Solder reflow temperature: J-STD-020 (latest revision) compliant

PHYSICAL CHARACTERISTICS

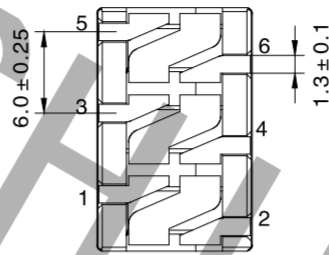
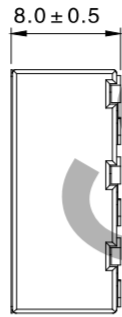
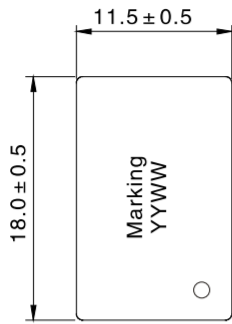
SMB121208-2W-R10M



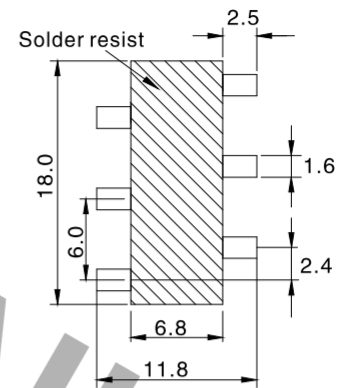
Recommended Pad layout



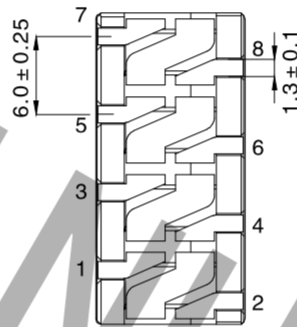
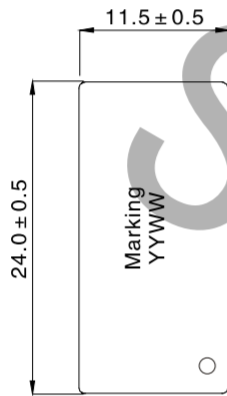
SMB181208-3W-R10M



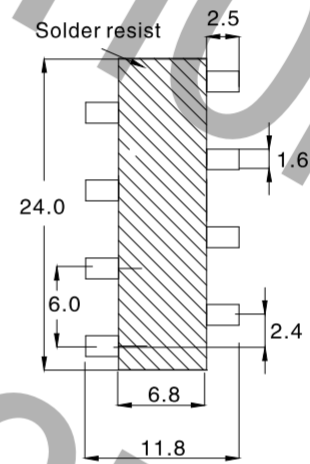
Recommended Pad layout



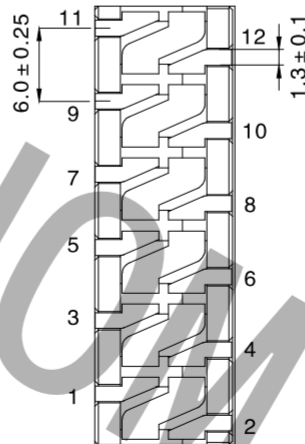
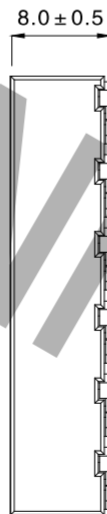
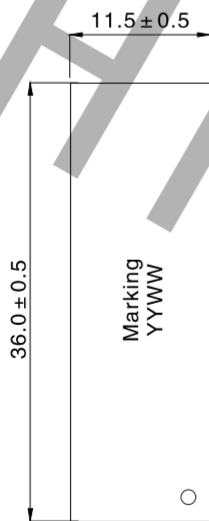
SMB241208-4W-R10M



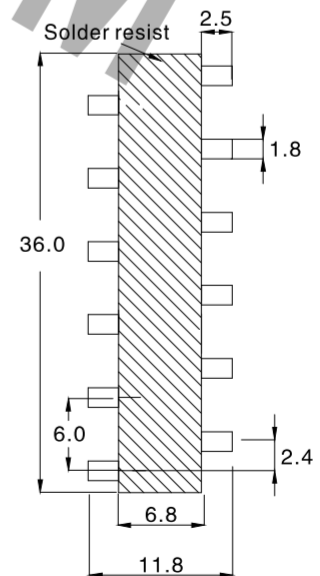
Recommended Pad layout



SMB361208-6W-R10M

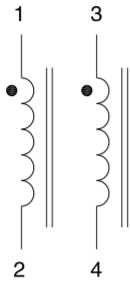


Recommended Pad layout

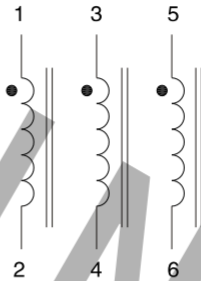


SCHEMATIC

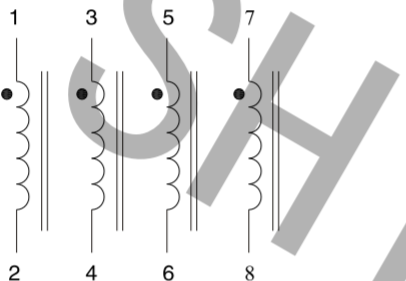
SMB121208-2W-R10M



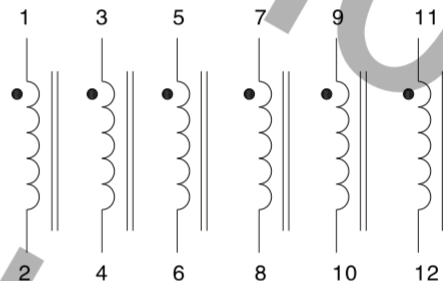
SMB181208-3W-R10M



SMB241208-4W-R10M

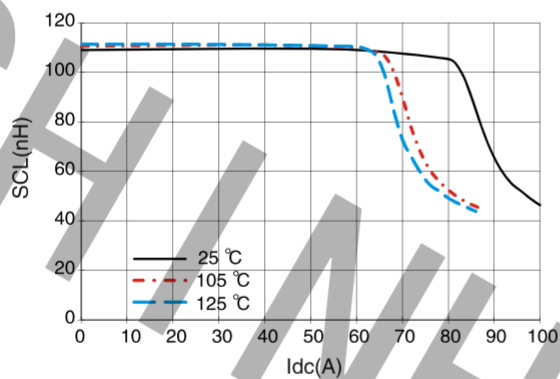


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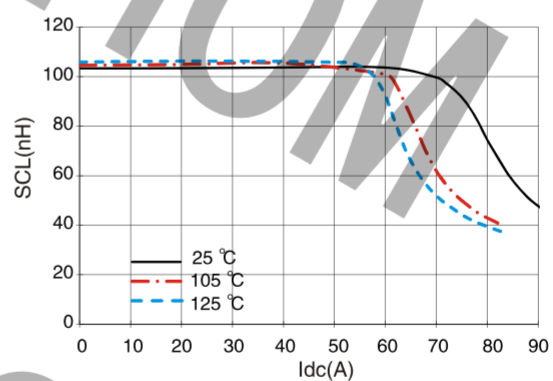


INDUCTANCE CHARACTERISTICS SCL VS. CURRENT

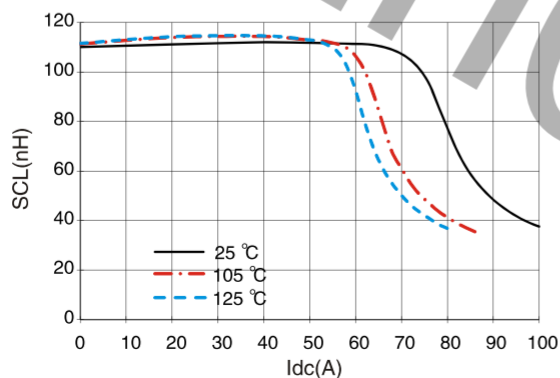
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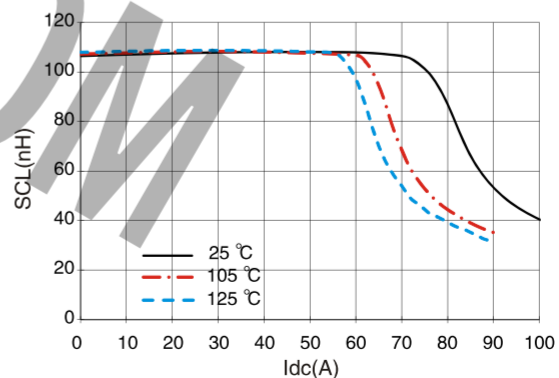
SMB181208-3W-R10M



SMB241208-4W-R10M

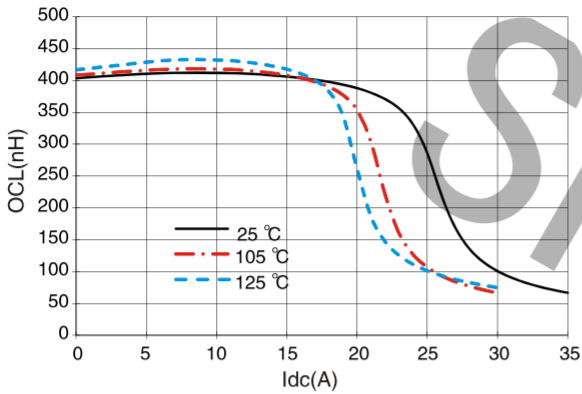


SMB361208-6W-R10M

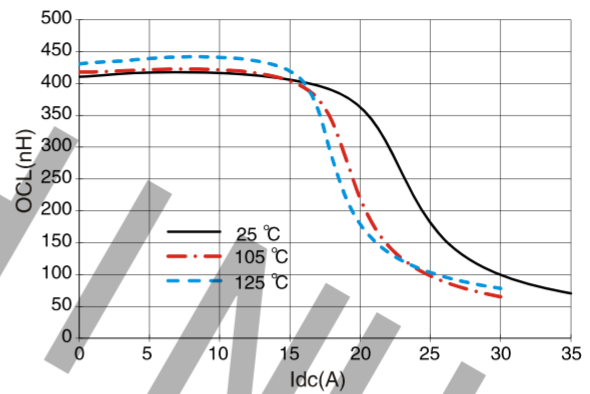


INDUCTANCE CHARACTERISTICS OCL VS. CURRENT

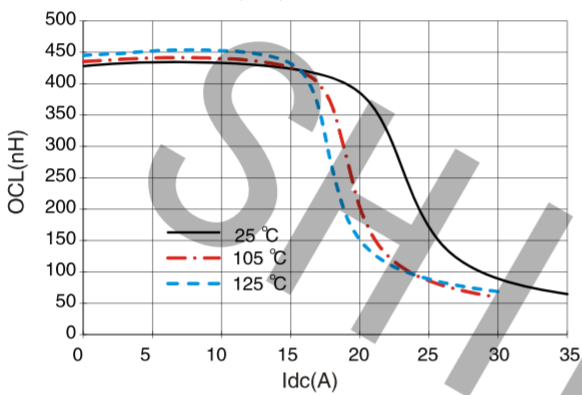
SMB121208-2W-R10M(1-2),(3-4)



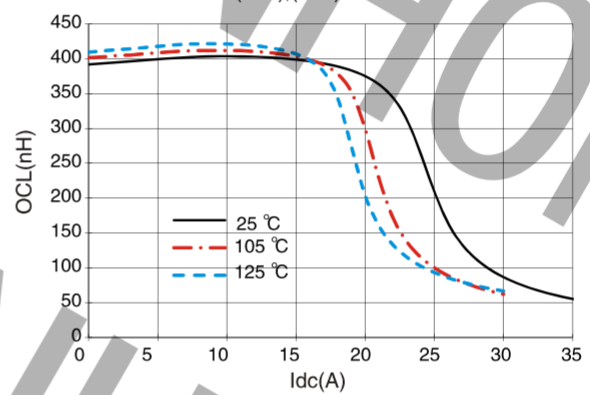
SMB181208-3W-R10M(1-2),(5-6)



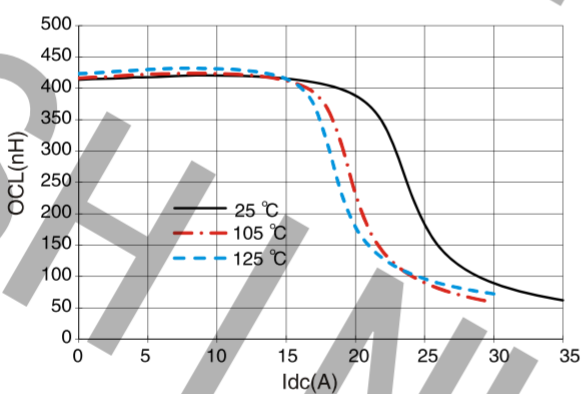
SMB181208-3W-R10M(3-4)



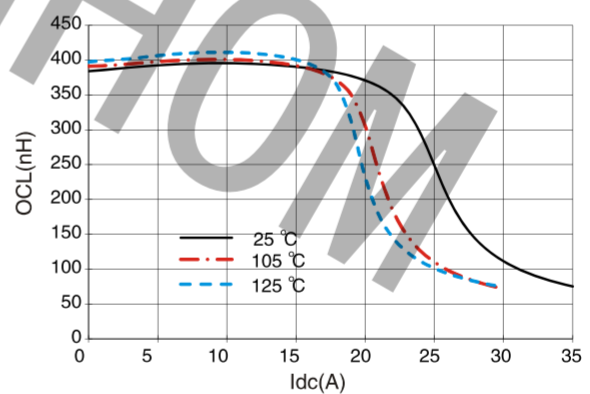
SMB241208-4W-R10M(1-2),(7-8)



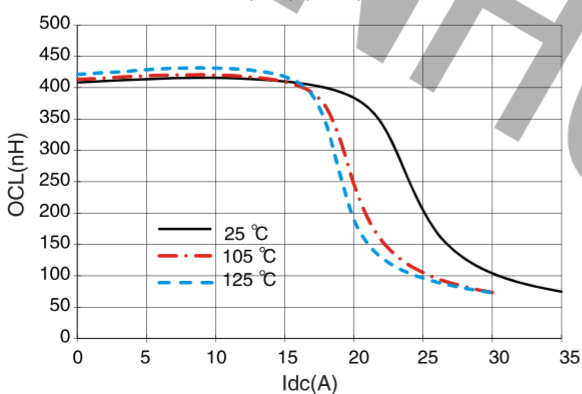
SMB241208-4W-R10M(3-4),(5-6)



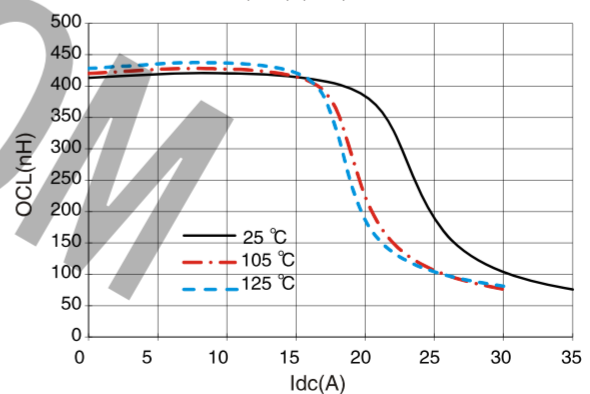
SMB361208-6W-R10M(1-2),(11-12)



SMB361208-6W-R10M(3-4),(9-10)



SMB361208-6W-R10M(5-6),(7-8)



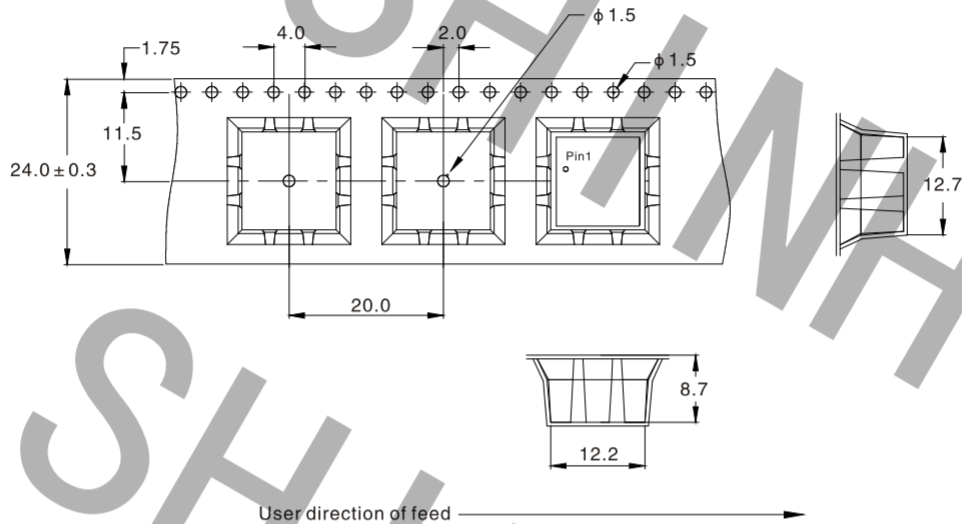
PACKAGING INFORMATION

SMB121208-2W-R10M

Supplied in tape and reel packaging on a 13" diameter reel

Drawing not to scale

300 parts per reel

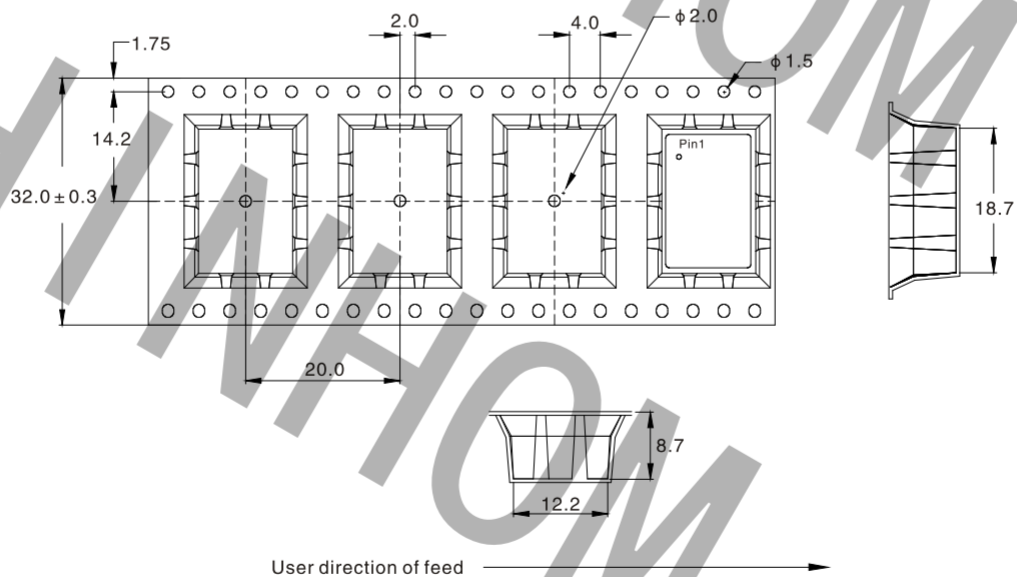


SMB181208-3W-R10M

Supplied in tape and reel packaging on a 13" diameter reel

Drawing not to scale

300 parts per reel



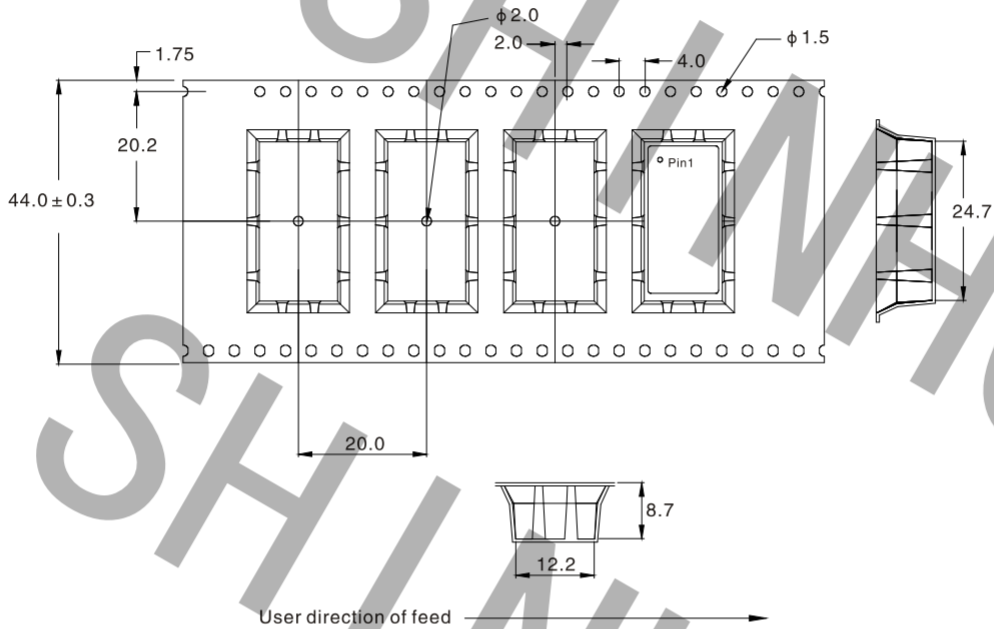
PACKAGING INFORMATION

SMB241208-4W-R10M

Supplied in tape and reel packaging on a 13" diameter reel

Drawing not to scale

200 parts per reel

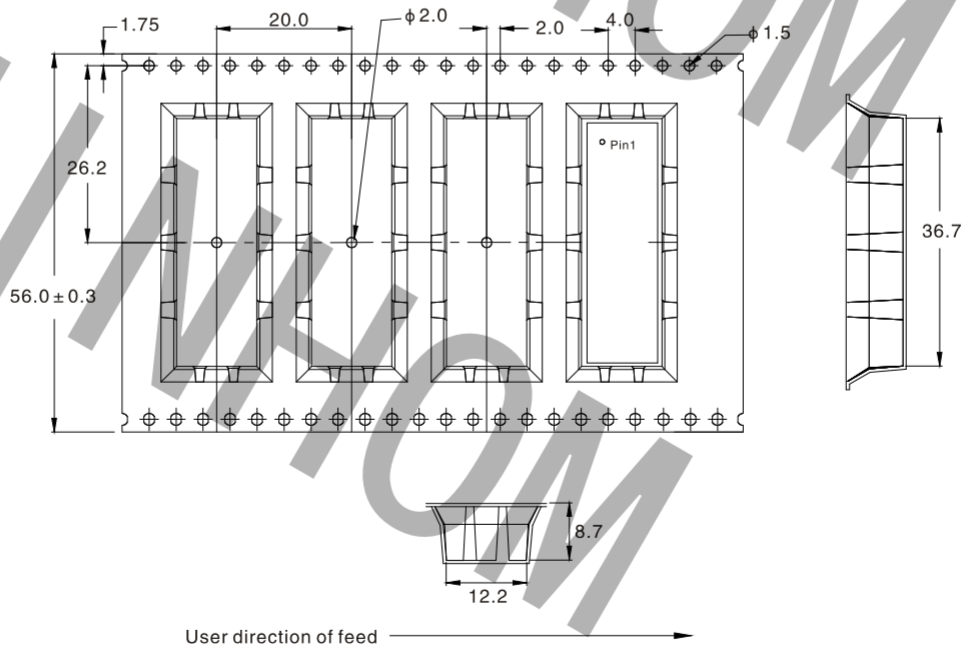


SMB361208-6W-R10M

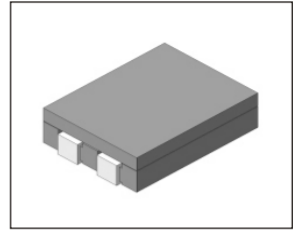
Supplied in tape and reel packaging on a 13" diameter reel

Drawing not to scale

200 parts per reel



SMT Couple Inductor SMB Series



Features

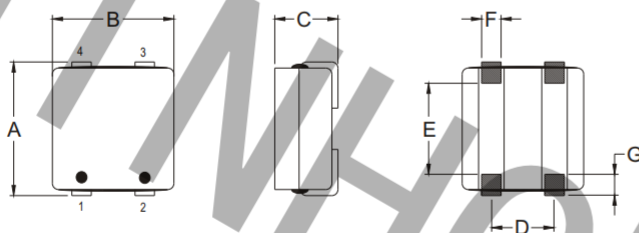
- RoHS compliant.
- Low profile, SMD type.
- High current.
- Magnetic shielded.
- High energy storage and low DCR.
- Provided with embossed carrier tape packing.
- Ideal for power source circuits, DC-DC converter, DC-AC inverters inductor applications.
- In addition to the standard versions shown here, customized inductors are available to meet your exact requirements.

ELECTRICAL CHARACTERISTICS:

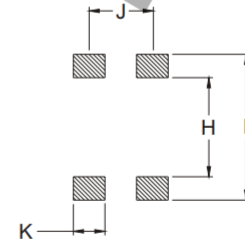
PART NO.	L ¹ (nH)	L @ Isat1 (nH)	2*Lk ² (nH)	2*Lk @ Isat2 (nH)	DCR (mΩ)	Isat1 ³ (Adc)	Isat2 ⁴ (Adc)
SMB0620B-800	80 ± 20%	64 ± 20%	45 ± 20%	32 MIN.	0.53 ± 10%	15	50
SMB0620B-101	100 ± 20%	80 ± 20%	55 ± 20%	40 MIN.	0.53 ± 10%	12	40
SMB0620B-141	140 ± 20%	112 ± 20%	80 ± 20%	56 MIN.	0.53 ± 10%	8	30
SMB0630B-151	150 ± 20%	120 ± 20%	85 ± 20%	80 MIN.	0.53 ± 10%	15	30
SMB1040B-R15	150 ± 20%	120 MIN.	150 ± 20%	/	0.30 ± 10%	38	/
SMB1040B-R30	300 ± 20%	224 ± 20%	180 ± 20%	144 MIN.	0.30 ± 10%	21	40
SMB1350B-R20H	200 ± 20%	160 MIN.	120 ± 20%	96 MIN.	0.245 ± 10%	24	50
SMB1375B-OR3	300 ± 20%	240 MIN.	200 ± 20%	/	0.43 ± 10%	55	/
SMB1440B-OR3	300 ± 20%	240 MIN.	180 ± 20%	144 MIN.	0.49 ± 10%	26	60
SMB1440B-R36	360 ± 20%	300 MIN.	200 ± 20%	160 MIN.	0.49 ± 10%	20	55
SMB1480BW-OR3	300 ± 20%	240 MIN.	200 ± 20%	/	0.18 ± 10%	50	/
SMB1490B-R42	420 ± 20%	336 ± 20%	280 ± 20%	/	0.53 ± 10%	55	/
SMB1740B-R31	310 ± 20%	300 ± 20%	168 ± 20%	168 ± 20%	0.38 ± 10%	21	35
SMB1970B-R42	420 ± 20%	336 MIN.	280 ± 20%	/	0.45 ± 10%	55	/

1. L is the inductance of each phase (1-4 @ 2,3 open or 2-3 @ 1,4 open) @100KHz, 1V, 25°C.
2. 2*Lk is two times of leakage inductance (1-2 @ 4,3 short)
3. Isat1 is the DC current which cause the L drop to L @ Isat1.(The unbalance current of both phase should smaller than Isat1.)
4. Isat2 is the DC current which cause the 2*Lk drop to 2*Lk @ Isat2.
5. Operating temperature : -40°C to 125°C (including self-temperature rise).

DIMENSIONS(mm) :



RECOMMENDED PAD PATTERNS



UNIT : mm

SERIES	A	B	C (MAX)	D±0.5	E±1.0	F±0.2	G±0.5	H	I	J	K
SMB0620B	7.0 ± 0.5	6.0 ± 0.5	2.0	2.5	4.0	1.5	1.5	3.0	8.00	2.5	2.0
SMB0630B	7.0 ± 0.5	6.0 ± 0.5	3.0	2.5	4.0	1.5	1.5	3.0	8.00	2.5	2.0
SMB1040B	10.5 ± 1.0	10.0 ± 0.5	4.0	4.1	6.0	2.0	2.5	5.0	12.00	4.1	2.5
SMB1350B	12.7 MAX.	12.05 MAX.	5.0	5.3	9.3	3.0	1.5	8.8	13.20	5.3	3.8
SMB1375B	13.0 ± 0.5	13.0 ± 0.5	7.8	4.1	8.0	2.0	2.5	7.5	14.00	4.1	2.5
SMB1440B	14.0 MAX.	10.0 ± 0.5	4.0	4.1	8.0	2.0	2.5	8.4	14.60	4.1	2.5
SMB1480BW	13.0 ± 0.5	17.4 ± 0.5	8.0	6.3	8.0	4.3	2.5	7.5	14.00	6.3	4.8
SMB1490B	14.5 ± 1.0	16.0 ± 0.5	9.0	6.1	9.5	2.0	2.5	9.0	15.50	6.1	2.5
SMB1740B	17.0 ± 1.0	10.0 ± 0.5	4.0	4.2	13.0	2.4	2.0	11.4	19.05	4.2	3.6
SMB1970B	19.7 ± 1.0	13.5 ± 0.5	7.0	5.3	13.5	2.2	3.0	12.5	20.70	5.3	2.7