

SMT POWER INDUCTOR

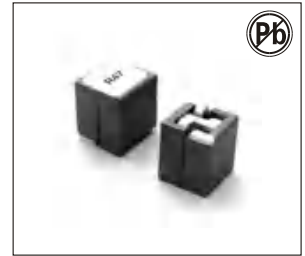
SMB0808B SERIES

FEATURES:

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Shielded construction
- Operating Temperature: -40°C to +125°C

APPLICATIONS:

- Servers
- Multi-phase and Vcore regulators
- Notebook regulators
- Battery power systems
- Graphics cards

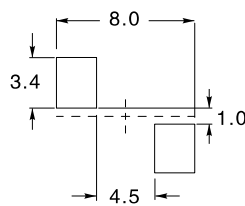
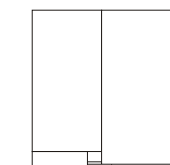
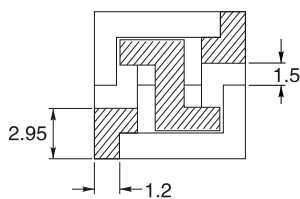
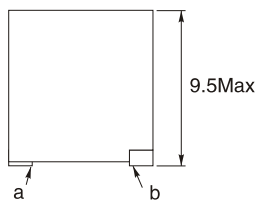
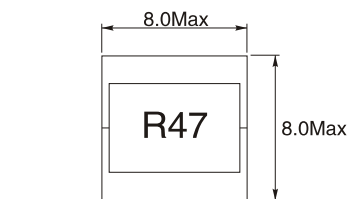


ELECTRICAL CHARACTERISTICS:

Part No.	Marking	OCL (nH) $\pm 10\%$	DCR (m Ω) $\pm 15\%$	I _{rms} (A) @ 25°C	I _{sat1} (A) @ 25°C
SMB0808B-R30K	R30	300	0.8	28	60
SMB0808B-R40K	R40	400	0.8	28	45
SMB0808B-R47K	R47	470	0.8	28	36
SMB0808B-R60K	R60	600	0.8	28	29
SMB0808B-R80K	R80	800	0.8	28	22
SMB0808B-1R0K	1R0	1000	0.8	28	15

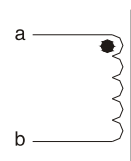
1. Open Circuit Inductance (OCL) test condition: 100KHz, 1V_{rms}, 0A_{dc} ,at 25°C
2. I_{rms}: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed +125 ° C under worst case operating conditions verified in the end application.
3. I_{sat} : Peak current for approximately 20% rolloff @ +25 °C
4. Marking: Denotes inductance
5. Tolerance: OCL Tolerance: K= $\pm 10\%$ / L= $\pm 15\%$ / M= $\pm 20\%$ Measurement Equipment: WK3260B+WK3265B (or equivalent)

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS



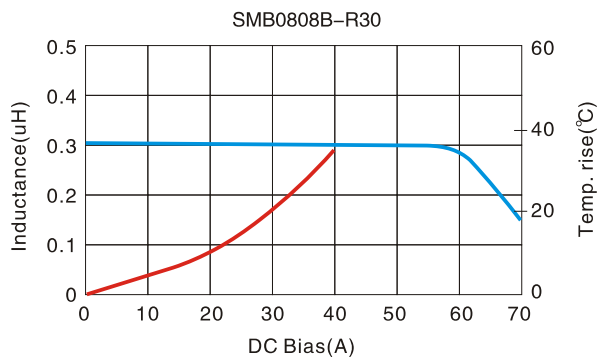
Suggested Pad Layout

Winding

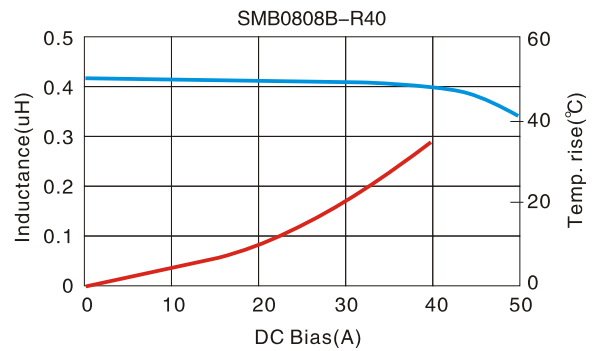


- Operating Temperature: -40°C to +125°C (Ambient plus self temperature rise)
- Storage Temperature: In Original Packaging, <40°C ; <75%RH
- Moisture Sensitivity Level (MSL): 1
- Packaging: 500 pcs , 13" Reel

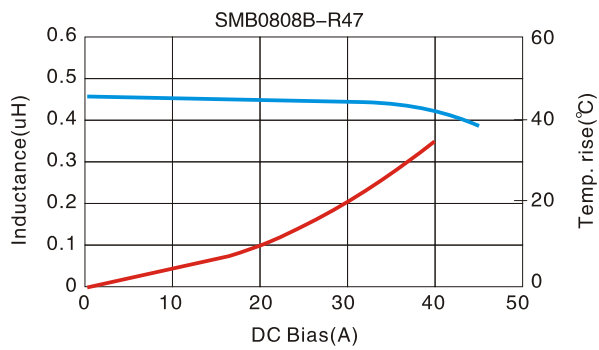
CURRENT VS INDUCTANCE & TEMPERATURE RISE:



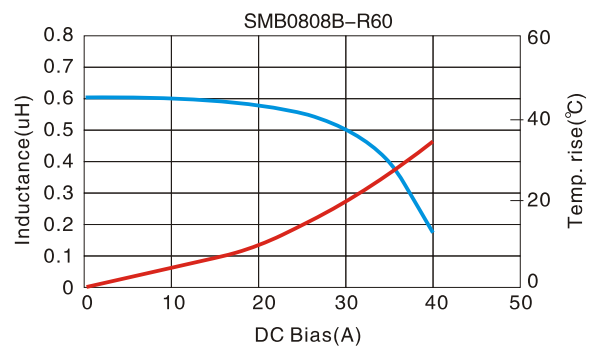
Inductance(uH) ————
Temp. rise(°C) ————



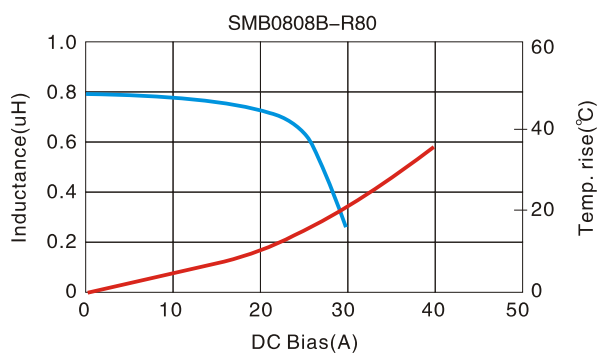
Inductance(uH) ————
Temp. rise(°C) ————



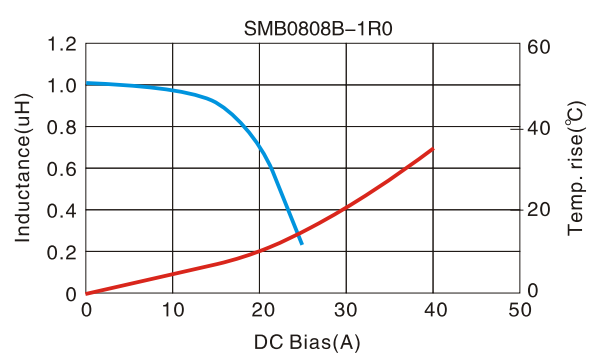
Inductance(uH) ————
Temp. rise(°C) ————



Inductance(uH) ————
Temp. rise(°C) ————



Inductance(uH) ————
Temp. rise(°C) ————



Inductance(uH) ————
Temp. rise(°C) ————

SMT POWER INDUCTOR

SMB1007B SERIES

FEATURES:

- Ferrite based SMT inductor with lower core loss.
- Inductance Range: 330.0nH to 1600.0nH, Custom values are welcomed.
- High current output chokes, up to 65.0 Amp with approx. 20% roll off.
- 10.00 mm Max. height.
- Perfect for high density designs with limited board space.
- Operating frequency up to 5.0 MHz application.
- Operating Temperature Range -55°C to + 130°C , RoHs & HF compliance .
- T & R Qtys: 400 pcs , 13" Reel ;

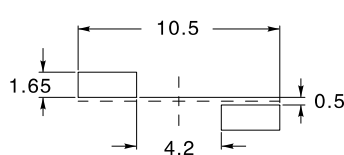
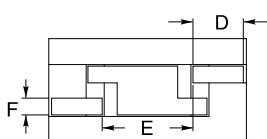
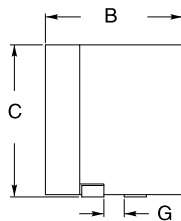
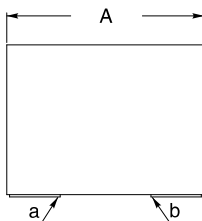


ELECTRICAL CHARACTERISTICS :

Part No.	OCL (nH) $\pm 15\%$	L@Isat1 (nH) Min	DCR (m Ω) $\pm 10\%$	Isat1 (A) @ 25°C	Isat2 (A) @ 75°C	Isat3 (A) @ 100°C	Irms (A) @ 25°C	Dim. B Max
SMB1007B-R33L	330	231	0.81	65	58	53	30	7.3
SMB1007B-R47L	470	329	0.81	48	40	38	30	7.0
SMB1007B-R68L	680	476	0.81	34	31	29	30	7.0
SMB1007B-R82L	820	574	0.81	28	25	23	30	7.0
SMB1007B-1R0L	1000	700	0.81	23	19	18	30	7.0
SMB1007B-1R2L	1200	840	0.81	20	17	15	30	7.0
SMB1007B-1R4L	1400	980	0.81	16	14	13	30	7.0
SMB1007B-1R6L	1600	1120	0.81	14	13	12	30	7.0

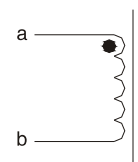
1. Open Circuit Inductance (OCL) test condition:100KHz,0.1Vrms,0Adc ,at 25°C
2. L @ Isat and L @ Irms Test condition:100KHz,0.1Vrms(Ta=25°C)
3. The nominal DCR is measured from point "a" to point "b", as shown above on the mechanical drawing (Ta=25°C)
4. Isat1,Isat2 , & Isat3 : DC current that will cause inductance to drop approximately by 20%.
5. Irms: DC current for an approximate temperature rise of 40°C without core loss , Derating is necessary for AC currents. PCB pad layout , trace thickness and width , air-flow and proximity of other heat generating components will affect the temperature rise. It is recommended the part temperature not exceed 130°C under worst case operating conditions verified in the end application.

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS



Suggested Pad Layout

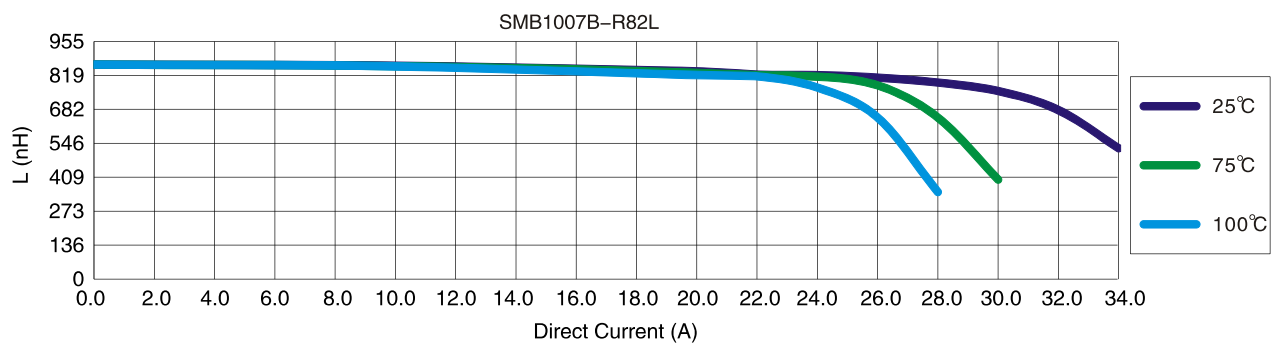
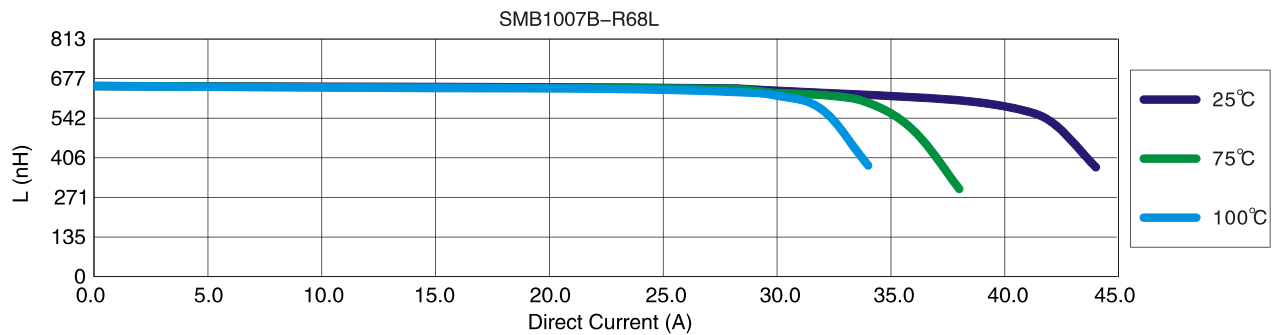
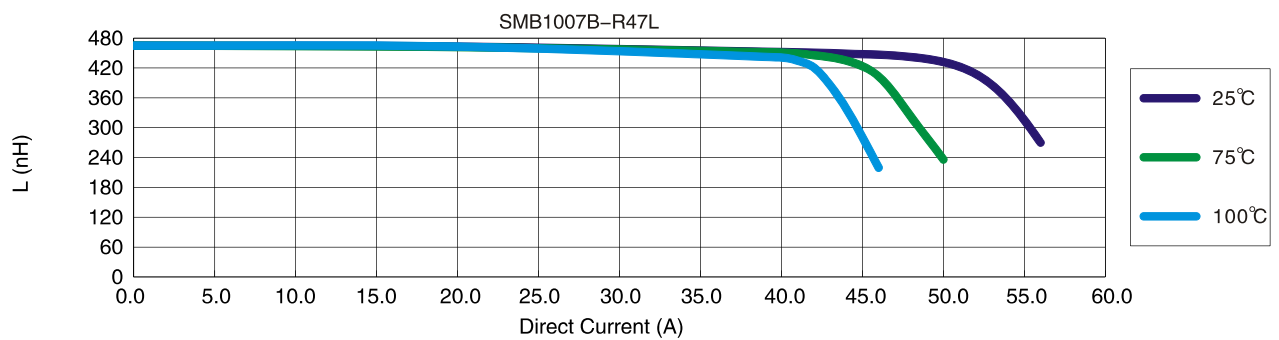
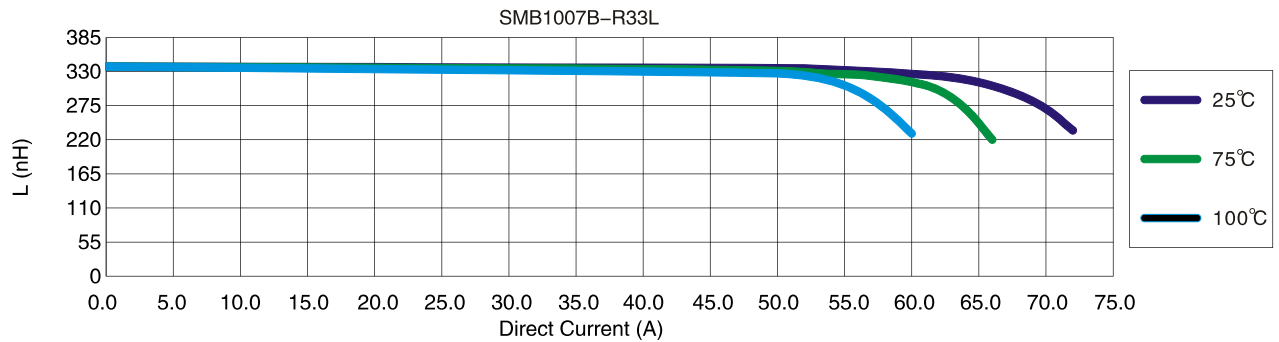
Winding



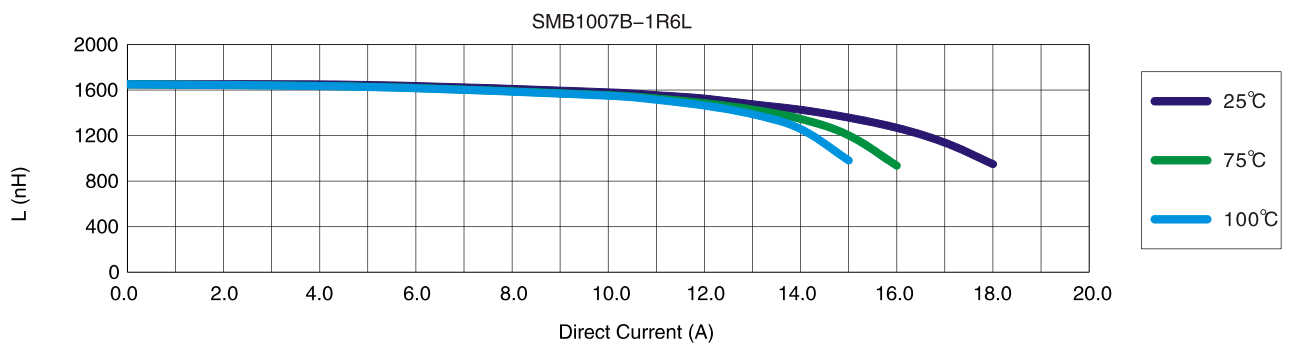
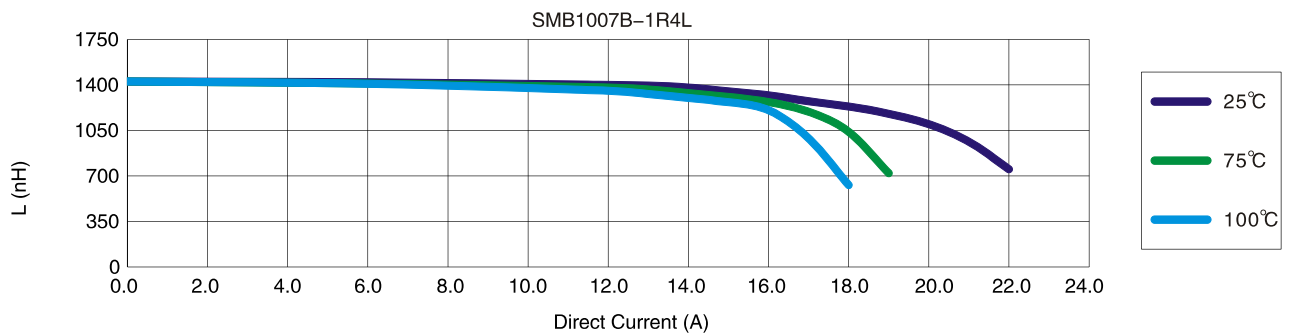
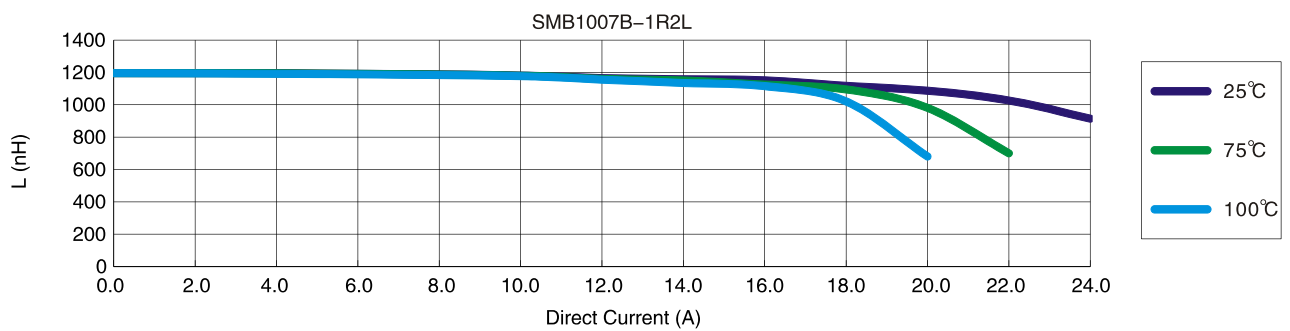
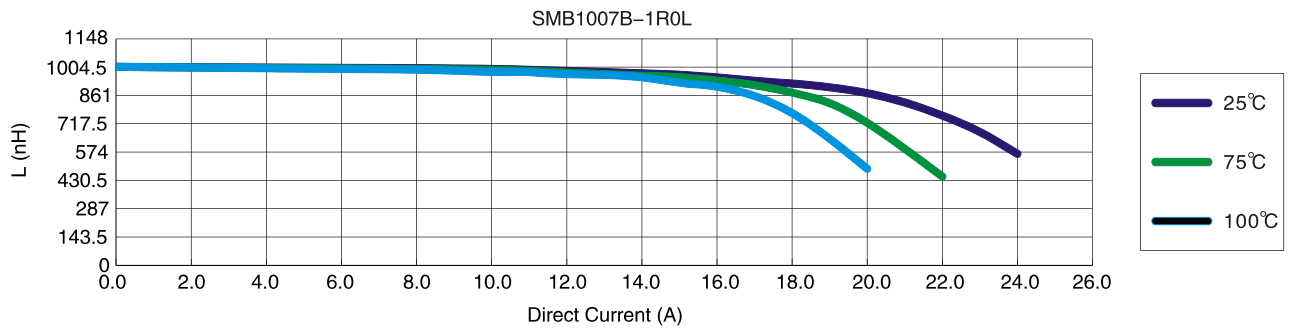
Mechanical Dimension(Unit : mm)

A Max	B Max	C Max	D ± 0.35	E Nom	F ± 0.2	G ± 0.3
10.0	see above table	10.0	2.5	4.5	1.1	1.0

CURRENT VS INDUCTANCE:



CURRENT VS INDUCTANCE:



SMD POWER BEAD

SMB SERIEIS

FEATURES

- * Suitable for applications with Ultra High Current.
- * High mechanical body.
- * Stable characteristic.
- * Operating temperature -40~+125℃ (Including self - temperature rise)

APPLICATIONS

- * Computer products, mother board, TV card
- * Power supplier, OA products, modem...
- * Communications
- * Countermeasures for complying with CE, FCC, VDE or VCCI radialiated emissions etc

PRODUCT IDENTIFICATION

SMB - 853025 C - 101 Y

① Product Symbol		② External Dimensions (LXWXH)(mm)		③ Shape Code	
SMB	SMD Power Bead	322521	3.10×2.50×2.15	None	Bottom Flatness
		323023	3.08×2.90×2.20	C	Bottom hollow groove
		403022	4.20×3.00×2.20		
		403025	4.20×3.10×2.90		
		784730	8.00×4.70×3.20		
		853025	9.00×3.00×2.80		
④ Nominal Impedance		⑤ Tolerance Value			
Example	Nominal Value	M	±20%		
400	40Ω	Y	±25%		
101	100Ω				

SHAPE AND DIMENSIONS(mm)

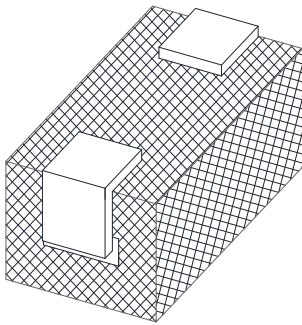
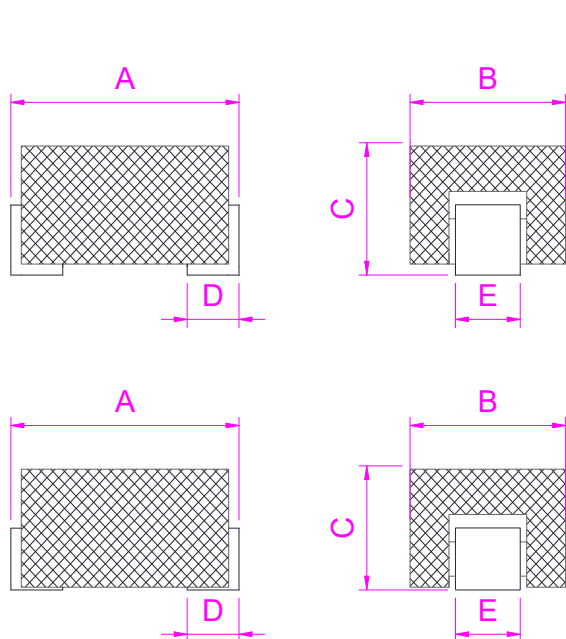


Figure 1

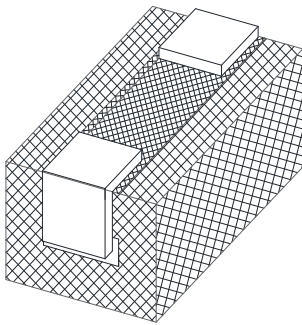
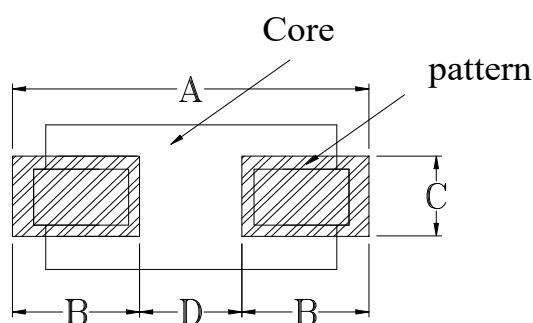


Figure 2

Part No.	A	B	C	D	E	Figure
SMB-322521C	3.20 max.	2.50±0.15	2.30 max.	0.85±0.20	0.70±0.10	2
SMB-323023C	3.20 max.	2.90±0.15	2.41 max.	0.80±0.20	0.85±0.10	2
SMB-403022C	4.90 max.	3.00±0.15	2.50 max.	1.30±0.20	1.25±0.15	2
SMB-403025	5.00 max.	3.10±0.15	3.10 max.	1.35±0.20	1.25±0.15	1
SMB-784730	8.80 max.	4.75±0.20	3.55 max.	1.45±0.30	1.25±0.15	1
SMB-853025C	9.40 max.	3.10±0.15	2.80 max.	1.45±0.30	1.25±0.15	2
SMB-853025	9.50 max.	3.00±0.15	3.10 max.	1.45±0.30	1.25±0.15	1

LAND PATTERN DIMENSIONS(mm)



Part No.	A	B	C	D
SMB-322521C	4.20	1.50	1.50	1.20
SMB-323023C	4.20	1.50	1.50	1.20
SMB-403022C	4.80	1.40	1.50	2.00
SMB-403025	4.80	1.40	1.50	2.00
SMB-784730	10.50	3.00	1.80	4.50
SMB-853025C	10.70	3.30	1.50	4.50
SMB-853025	10.70	3.30	1.50	4.50

ELECTRICAL SPECIFICATIONS

Part No.	Impedance (Ω)		DC Resistance (mΩ) max.	Rated Current (A) typ.
	25MHz	100MHz	@25°C	ΔT=40°C
SMB-322521C-350Y	25±25%	35±25%	0.60	14.0
SMB-323023C-400Y	23±25%	40±25%	0.60	15.0
SMB-403022C-400Y	28±25%	42±25%	0.60	15.0
SMB-403025-530Y	35±25%	53±25%	0.60	16.0
SMB-784730-980Y	65±25%	98±25%	0.90	18.0
SMB-853025C-900Y	65±25%	90±25%	1.00	17.0
SMB-853025-101Y	65±25%	100±25%	1.00	17.0

TYPICAL CHARACTERISTICS CURVE

