



# Shielded Power Inductor-SMR Series



## FEATURES

- ROHS, Halogen free and REACH Compliance.
- Shielded power inductor.
- Various high power inductors are superior to be high saturation for surface mounting.
- Packed in embossed carriertape and can be used by automatic mounting machine

## APPLICATIONS

Portable computers, GPS, LED televisions, TV,DC/DC converter and power supply for VTRs.

## PRODUCT IDENTIFICATION



01 Type	
SMR	Shielded Power Inductor

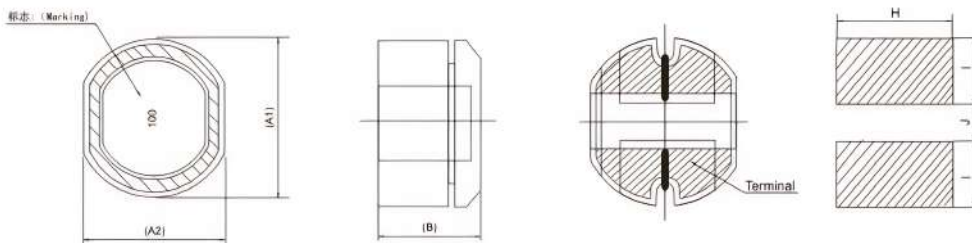
02 External Dimensions (LxW)(mm)	
63B	6.3x 3.5
74B	7.5x 4.5
105B	10.0x 5.0

04 Nominal Inductance	
Example	Nominal value
2R2	2.2uH
220	22uH
221	220uH

05 Tolerance	
K	±10%
M	±20%
N	±30%

05 Packing	
T	Tape & Reel

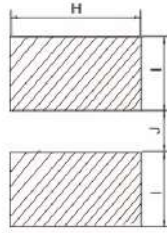
## SHAPE AND DIMENSIONS



Part Number	Dimensions(mm)					
	A1	A2	B	H	I	C(REF)
SMR63B	6.2±0.3	5.6±0.3	3.5MAX	5.5	2.25	1.7
SMR74B	7.8±0.4	7.0±0.4	4.5±0.5	7.5	4.0	2.0
SMR105B	10.0±0.4	9.0±0.4	5.0±0.5	9.5	5.0	2.5



## RECOMMENDED PC BOARD PATTERN



Part Number	Dimensions(mm)		
	D	E	F
SMR63B	5.5	2.25	1.7
SMR74B	7.5	4.0	2.0
SMR105B	9.5	5.0	2.5

## SPECIFICATIONS

### ● SMR63B TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SMR63B-1R0	1.0	N	100/0.25	0.05	2600
SMR63B-1R5	1.5		100/0.25	0.06	2400
SMR63B-2R2	2.2		100/0.25	0.07	2000
SMR63B-3R3	3.3		100/0.25	0.08	1800
SMR63B-4R7	4.7		100/0.25	0.10	1500
SMR63B-6R8	6.8		100/0.25	0.11	1200
SMR63B-100	10	K、M	100/0.25	0.14	1000
SMR63B-120	12		100/0.25	0.16	940
SMR63B-150	15		100/0.25	0.18	860
SMR63B-180	18		100/0.25	0.25	780
SMR63B-220	22		100/0.25	0.32	760
SMR63B-270	27		100/0.25	0.38	640
SMR63B-330	33		100/0.25	0.41	610
SMR63B-390	39		100/0.25	0.47	530
SMR63B-470	47		100/0.25	0.51	500
SMR63B-560	56		100/0.25	0.72	460
SMR63B-680	68		100/0.25	0.82	420



● SMR74B TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SMR74B-100	10	K、 M	100/0.25	0.07	1650
SMR74B-120	12		100/0.25	0.07	1570
SMR74B-150	15		100/0.25	0.08	139
SMR74B-180	18		100/0.25	0.10	1290
SMR74B-220	22		100/0.25	0.13	1120
SMR74B-270	27		100/0.25	0.16	1060
SMR74B-330	33		100/0.25	0.18	970
SMR74B-390	39		100/0.25	0.18	910
SMR74B-470	47		100/0.25	0.27	800
SMR74B-560	56		100/0.25	0.29	760
SMR74B-680	68		100/0.25	0.33	660
SMR74B-820	82		100/0.25	0.43	620
SMR74B-101	100		100/0.25	0.49	550
SMR74B-121	120		100/0.25	0.68	490
SMR74B-151	150		100/0.25	0.94	440
SMR74B-181	180		100/0.25	1.00	400
SMR74B-221	220		100/0.25	1.18	360

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;**

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SMR105B TYPE

Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SMR105B-100	10	M	100/0.25	0.06	2000
SMR105B-120	12		100/0.25	0.07	1900
SMR105B-150	15		100/0.25	0.07	1700
SMR105B-180	18		100/0.25	0.08	1550
SMR105B-220	22		100/0.25	0.08	1400
SMR105B-270	27		100/0.25	0.10	1300



Part Number	Inductance (uH)	Tolerance	Test condition (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SMR105B-330	33	K、M	100/0.25	0.11	1100
SMR105B-390	39		100/0.25	0.12	1100
SMR105B-470	47		100/0.25	0.14	1000
SMR105B-560	56		100/0.25	0.19	900
SMR105B-680	68		100/0.25	0.21	850
SMR105B-820	82		100/0.25	0.28	750
SMR105B-101	100		100/0.25	0.34	700
SMR105B-121	120		100/0.25	0.37	600
SMR105B-151	150		100/0.25	0.51	550
SMR105B-181	180		100/0.25	0.57	500
SMR105B-221	220		100/0.25	0.78	450
SMR105B-271	270		100/0.25	0.87	400
SMR105B-331	330		100/0.25	1.20	350
SMR105B-391	390		100/0.25	1.34	350
SMR105B-471	470		100/0.25	1.50	300

**Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;**

1. Operating temperature range -40 -125°C

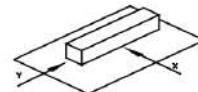
2. Isat for Inductance drop 30% from its value without current



## DETAIL ELECTRICAL CHARACTERISTICS

1. Operating temperature range: -40 to + 105°C(Includes temperature when the coil is heated) .
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y

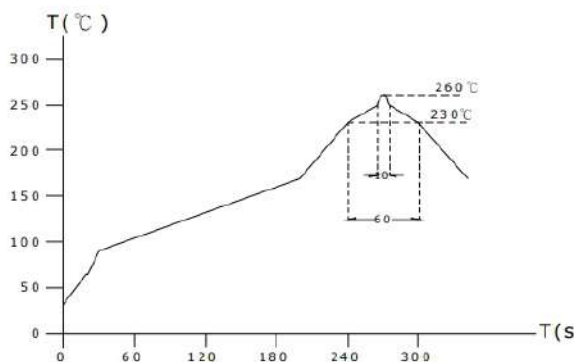
withstanding at below conditions.



Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.

4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  (-25~+80°C degree Celsius), inductance deviation within  $\pm 5.0\%$ , after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with 981m/s<sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds(See attached recommend reflow) .
11. Storage condition: Temperature Range: 0°C ~ 35°C; -40°C ~ 105°C (after PCB), Humidity Range: 50% ~ 70% RH.
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition

