

SP02 Series Shielded Power Inductors

Features

- High current output chokes and lower core loss
- Ideal inductors for buck converter
- Suitable for high density board design
- No thermal aging

Applications

- Power supplies
- VRM for server
- DC-DC converters
- Industrial electronics, etc.



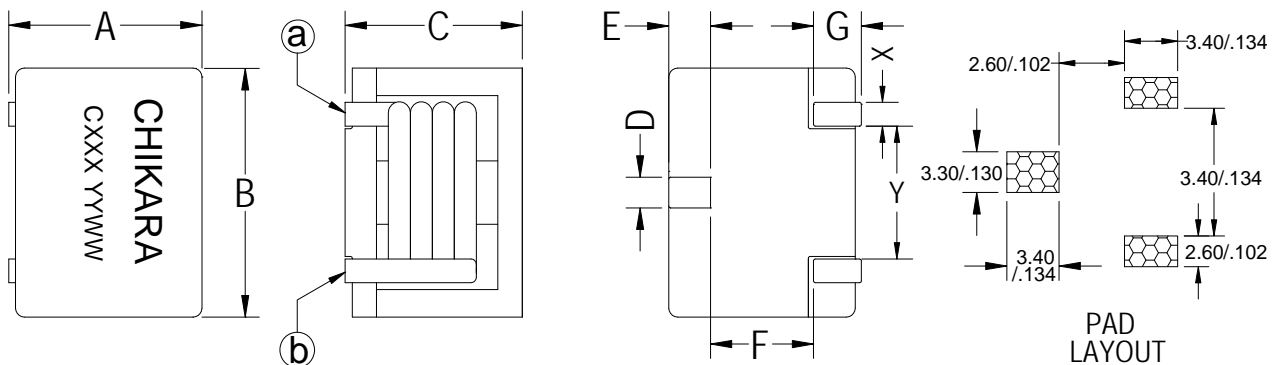
Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -55°C to +135°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Supplied in tape and reel packaging, 500pcs, per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



X&Y See table

Type	A Max.	B Max.	C Max.	D	E	F	G
SP02-1108	9.2 0.362	10.8 0.425	8.0 0.315	2.5±0.2 0.098±0.08	2.4±0.2 0.094±0.08	3.5±0.4 0.138±0.016	2.3±0.4 0.091±0.016

Electrical Schematic



Part Number Description

SP02 - 1108 R30 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP02 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance (uH)	Test Freq. (KHz)	DC Resistance (mΩ)±6%	Isat(A) Typ.		Irms (A)Max.	Dimension	
				at25°C	at100°C		X(±0.2)	Y(±0.4)
SP02-1108R30M	0.30	100	0.68	42.5	33.5	47.0	1.8/.070	4.5/.177
SP02-1108R40M	0.40	100	0.91	43.0	34.0	38.0	1.8/.070	4.5/.177
SP02-1108R45M	0.45	100	0.91	41.0	31.7	38.0	1.8/.070	4.5/.177
SP02-1108R60M	0.60	100	0.91	32.0	25.5	38.0	1.8/.070	4.5/.177
SP02-11081R0M	1.00	100	1.76	26.0	20.3	26.1	1.8/.070	4.5/.177
SP02-11082R0M	2.00	100	3.30	15.9	12.7	16.4	1.6/.063	4.8/.189
SP02-11083R0M	3.00	100	5.90	16.0	12.5	12.4	1.6/.063	4.8/.189
SP02-11084R7M	4.70	100	5.30	8.4	6.7	13.2	1.6/.063	4.8/.189
SP02-11086R8M	6.80	100	7.70	8.5	6.8	9.6	1.6/.063	4.8/.189

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%
- DCR:The nominal DCR is measured from point"a" to point "b",as shown above on the mechanical drawing.
- Isat:DC current that will cause inductance to drops by 20% typical. (Ta=25°C)
- 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 125°C under worst case operating conditions verified in the end application.