SMD Power Inductor

SLPI100752ST-Series-R1210

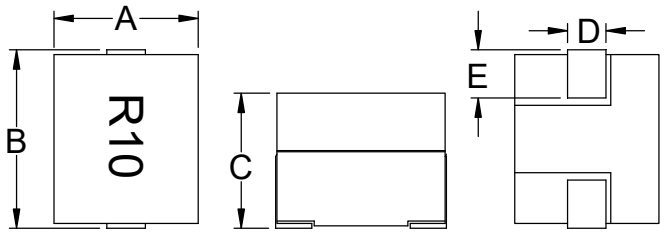
1. Features

1. Low loss realized with low DCR.
2. High performance realized by metal dust core.
3. Ultra low buzz noise, due to composite construction.
4. 100% Lead(Pb)-Free & Halogen-Free and RoHS compliant.

2. Applications

Commercial applications.

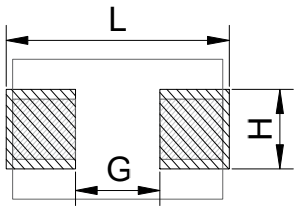
3. Dimensions



A	B	C	D	E
6.8±0.2	10.0±0.25	5.0±0.2	2.54±0.3	2.03±0.3

Unit:mm

Recommend PC Board Pattern



L	G	H
10.65	5.55	2.90

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.12mm and above.

4. Part Numbering

SLPI	100705	ST	-	R10	K	-	R1210
A	B	C		D	E		F

A: Series
B: Dimension BxC
C: Type Standard
D: Inductance R10=0.10uH
E: Inductance Tolerance K=±10%
F: Code DC Resistance, Marking direction cannot decide polarity.

5. Specification

Part Number	Inductance L0A DC (uh)	I rms (A)	I sat (A) Typ			DCR (mΩ)	Mark
		Max	25℃	100℃	125℃		
SLPI100752ST-R10K-R1210	0.10±10%	40	65	55	48	0.125±10%	R10
SLPI100752ST-R12K-R1210	0.12±10%	40	55	---	---	0.125±10%	R12

Note:

1. Test frequency : Ls : 100KHz /0.1V.
2. All test data referenced to 20℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 125℃under worst case operating conditions.Circuit design,component,PCB trace size and thickness,airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC current: The lower value of Irms and Isat.