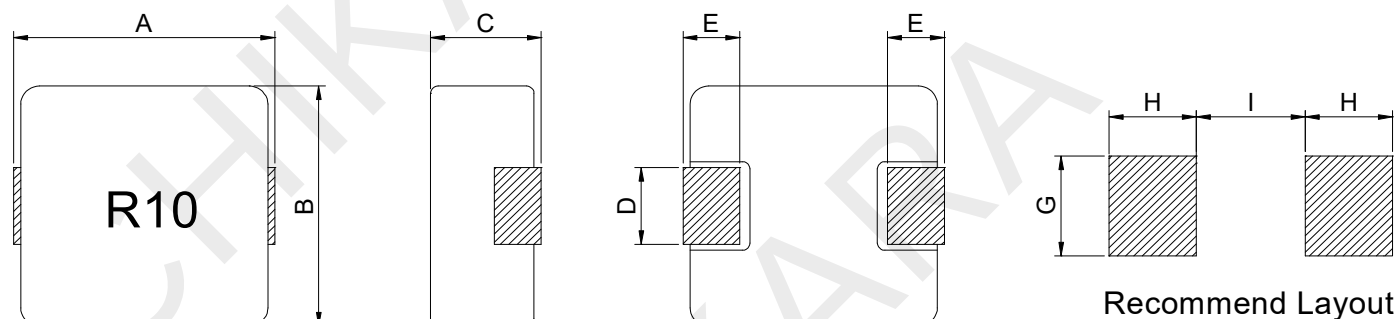


Features

- High energy storage and very low resistance
- Storage temperature range:-55°C to +125°C
- Operating temperature range:-55°C to +125°C
(including coil's self-temperature rise)
- Moisture sensitivity level:1
- Packaging:2000pcs. Per 13-inch reel
- RoHs&Halogen-free compliant



Mechanical Dimension(Unit:mm)



A	B	C	D	E	G	H	I
7.0±0.35	6.6±0.3	1.8Max.	3.0±0.3	1.6±0.5	3.5	2.35	3.7

Part Number Description

SP14 - 070018 R10 M
① ② ③ ④

①	Type
②	Dimensions
③	Inductance value
④	Tolerance code

Electrical Schematic



Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.
SP14-070018R10M	0.10±20%	2.50	3.50	130	30.0	18.0
SP14-070018R22M	0.22±20%	4.50	5.70	110	25.0	14.0
SP14-070018R33M	0.33±20%	5.80	7.00	98	20.0	12.0
SP14-070018R47M	0.47±20%	7.50	8.40	85	18.0	11.5
SP14-070018R68M	0.68±20%	9.00	12.0	80	16.5	9.50
SP14-0700181R0M	1.0±20%	14.0	16.0	70	12.0	8.50
SP14-0700181R5M	1.5±20%	22.0	26.0	52	9.20	8.00
SP14-0700182R2M	2.2±20%	30.0	35.0	47	8.00	7.00
SP14-0700183R3M	3.3±20%	45.0	50.0	40	7.00	5.50
SP14-0700184R7M	4.7±20%	55.0	62.0	30	5.00	4.00
SP14-0700186R8M	6.8±20%	86.0	110	22	4.00	3.00
SP14-070018100M	10±20%	140	155	15	2.50	2.30

- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Absolute maximum voltage: 30Vdc.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.
- Heat rated current (Irms) is tested on a typical PCB and apply a constant current in still air. The temperature rise is dependent on the application system condition including PCB PAD pattern, trace width and thickness and adjacent components etc. It's suggested to verify the temperature rise of the component under the real operation application conditions.

Soldering Specification

- Reflow profile for SMT components



- Classification of peak package body temperature (Tp)

	Package Thickness	Package Volume		
		<350mm ³	350~2000mm ³	>2000mm ³
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6~2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

※ Reflow is referred to standard IPC/JEDEC J-STD-020D.