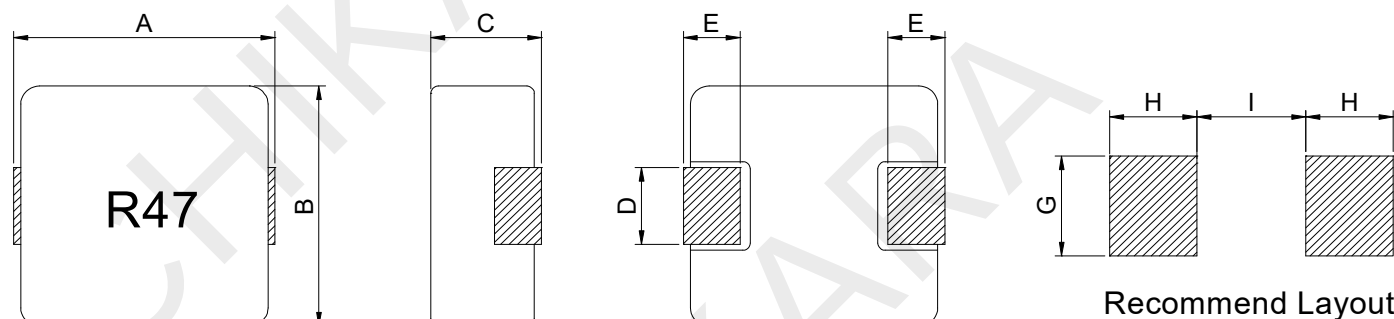


Features

- 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:3000pcs. Per 13-inch reel
- RoHs&Halogen-free compliant



Mechanical Dimension(Unit:mm)



A	B	C	D	E	G	H	I
5.4±0.35	5.2±0.3	1.8Max.	2.2±0.3	1.2±0.3	2.5	1.9	2.2

Part Number Description

SP14 - 057018 R47 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.
SP14-057018R47M	0.47±20%	7.70	9.0	93	15.5	10.5
SP14-057018R56M	0.56±20%	8.00	10.0	88	15.0	9.5
SP14-057018R68M	0.68±20%	12.0	13.8	85	11.2	9.0
SP14-0570181R0M	1.0±20%	15.0	17.0	60	9.0	8.0
SP14-0570181R5M	1.5±20%	21.0	26.0	50	8.5	7.5
SP14-0570182R2M	2.2±20%	30.0	35.0	43	6.5	5.0
SP14-0570183R3M	3.3±20%	52.0	58.0	32	5.0	4.5
SP14-0570184R7M	4.7±20%	78.0	85.0	25	4.0	3.5
SP14-0570186R8M	6.8±20%	107	120	19	3.4	2.8
SP14-057018100M	10±20%	140	155	14	3.0	2.5

- 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.