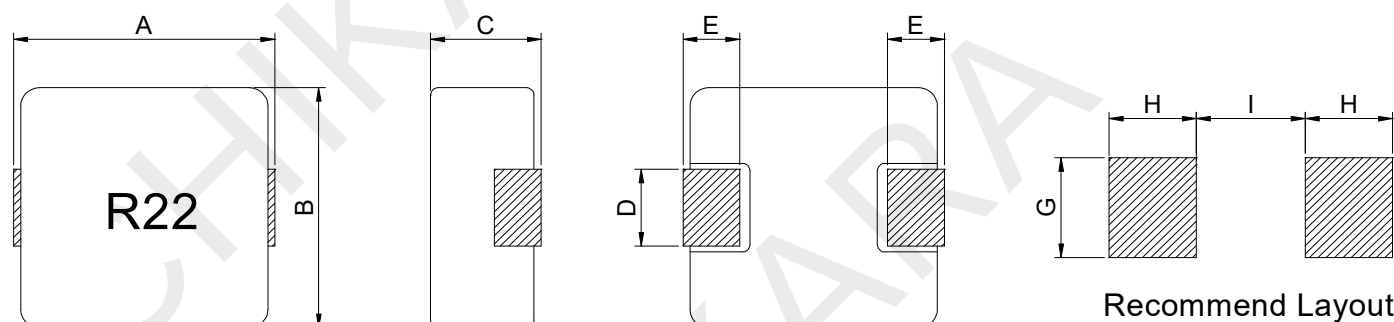


Features

- 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:1000pcs. 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	5.0Max.	3.0±0.3	1.6±0.5	3.5	2.35	3.7

Part Number Description

SP14 - 070050 R22 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.
SP14-070050R22M	0.22±20%	2.05	2.80	140	30.0	25.0
SP14-070050R47M	0.47±20%	3.50	4.30	110	21.0	20.0
SP14-070050R68M	0.68±20%	4.50	5.00	90	18.0	16.5
SP14-0700501R0M	1.0±20%	5.50	6.60	52	16.0	12.0
SP14-0700501R5M	1.5±20%	8.50	10.0	48	13.0	9.5
SP14-0700502R2M	2.2±20%	10.0	12.5	37	11.5	9.0
SP14-0700503R3M	3.3±20%	18.5	22.0	29	10.0	8.5
SP14-0700504R7M	4.7±20%	24.5	29.0	22	8.0	6.5
SP14-0700505R6M	5.6±20%	26.0	30.0	20	7.0	6.0
SP14-0700506R8M	6.8±20%	35.0	41.0	17	6.5	5.8
SP14-0700508R2M	8.2±20%	48.0	55.0	15	5.5	5.5
SP14-070050100M	10±20%	52.0	60.0	13	5.3	4.5
SP14-070050150M	15±20%	82.0	95.0	12	4.0	3.1
SP14-070050220M	22±20%	130	145	11	3.5	2.5
SP14-070050330M	33±20%	163	200	9.5	3.0	2.3
SP14-070050470M	47±20%	230	260	7.5	2.6	2.0

- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Absolute maximum voltage: 50Vdc.
- 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.