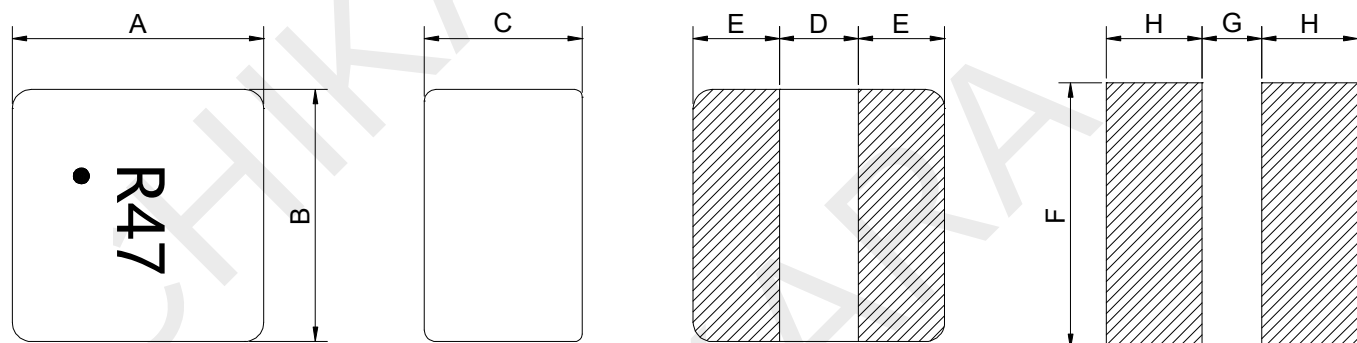


Features

- Compact design, Flat wire
- Storage temperature range:-40°C to + 125°C
- Operating temperature range:-40°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)



Recommended Layout

A	B	C	D	E	F	G	H
4.1±0.3	4.1±0.3	3.0Max.	1.4±0.25	1.35±0.2	4.3	1.3	1.5

Part Number Description

SP16 - 040030 R47 M
① ② ③ ④

①	Type
②	Dimensions
③	Inductance value
④	Tolerance code

Electrical Schematic

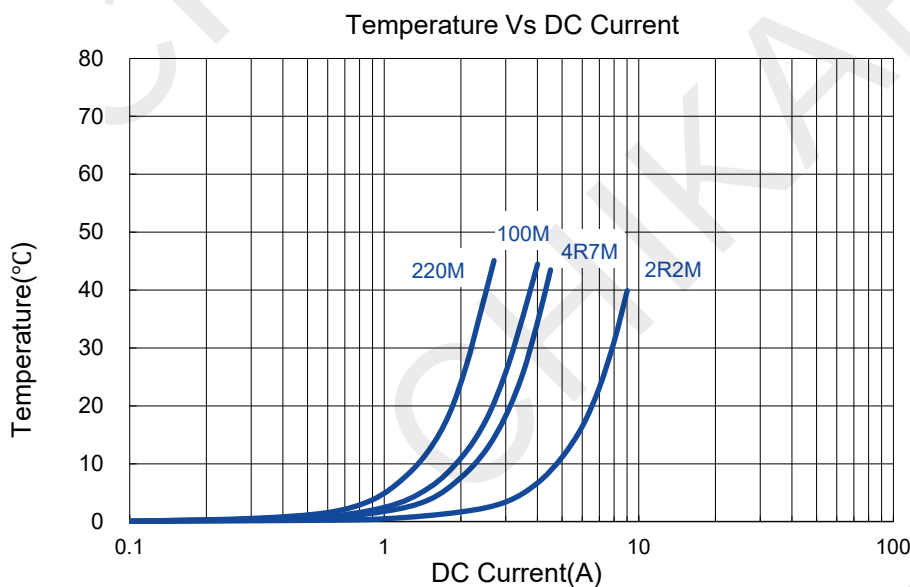
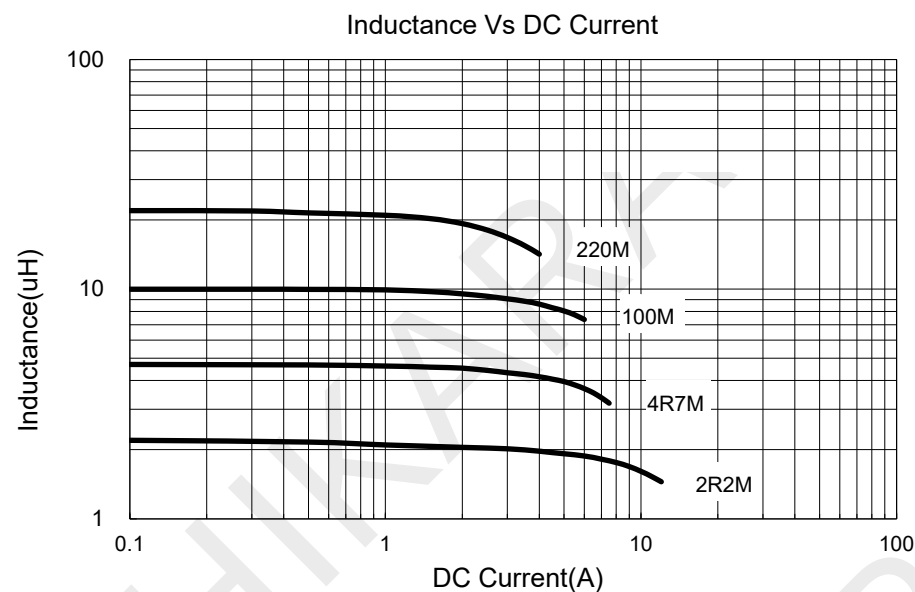


Electrical Characteristic

Part Number	Inductance L0(μ H)	DCR		Isat		Irms	
		(m Ω)Max.	(m Ω)Typ.	(A)Max.	(A)Typ.	(A)Max.	(A)Typ.
SP16-040030R47M	0.47 $\pm$ 20%	7.0	5.5	21	23.0	14.0	15.0
SP16-040030R56M	0.56 $\pm$ 20%	7.5	6.0	20	22.0	13.8	14.5
SP16-040030R68M	0.68 $\pm$ 20%	10	8.3	15	17.0	9.5	10.5
SP16-0400301R0M	1.0 $\pm$ 20%	12	10	14	15.5	9.0	10.0
SP16-0400301R5M	1.5 $\pm$ 20%	18	15	11	12.5	8.5	9.5
SP16-0400302R2M	2.2 $\pm$ 20%	23	19	9.5	10.5	7.0	7.5
SP16-0400303R3M	3.3 $\pm$ 20%	35	30	7.5	8.5	6.2	6.7
SP16-0400304R7M	4.7 $\pm$ 20%	46	41	6.0	7.0	4.1	4.6
SP16-0400306R8M	6.8 $\pm$ 20%	62	51	5.1	6.3	3.8	4.2
SP16-0400308R2M	8.2 $\pm$ 20%	102	90	4.8	5.2	3.5	3.9
SP16-040030100M	10 $\pm$ 20%	110	93	4.5	4.9	3.3	3.7
SP16-040030220M	22 $\pm$ 20%	220	190	3.0	3.4	2.2	2.5

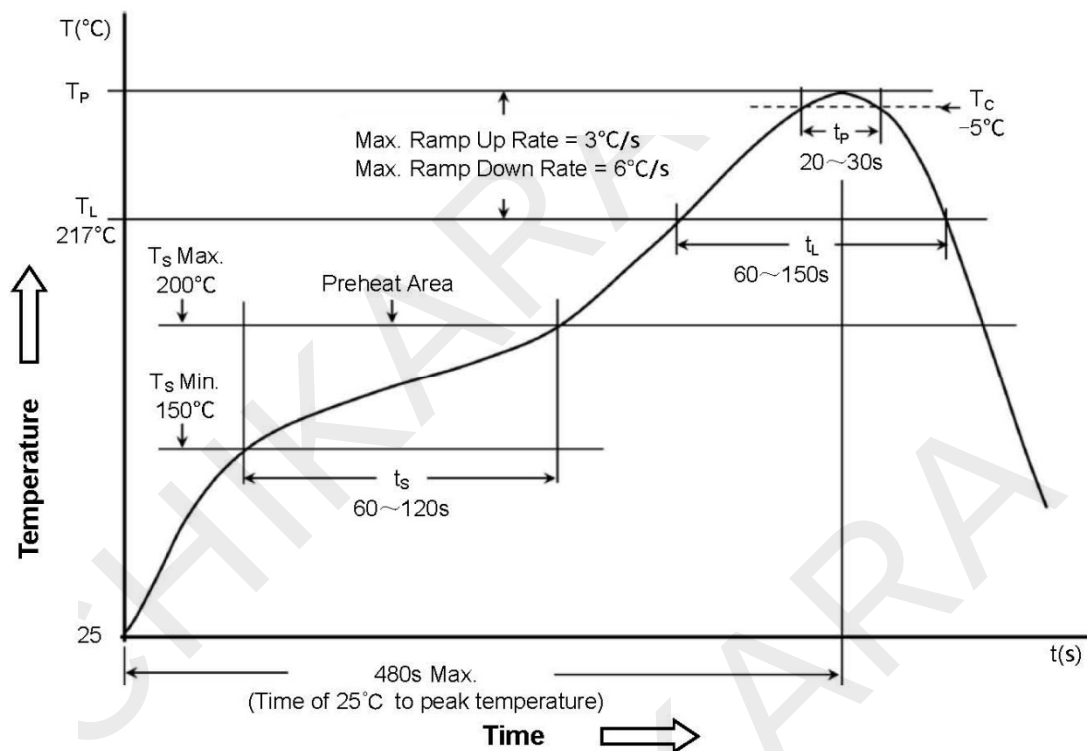
- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25°C ambient.
- Absolute maximum voltage: 30Vdc.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.
- Heat rated current (Irms) 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.

Characteristic Curve (Typical value)



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.