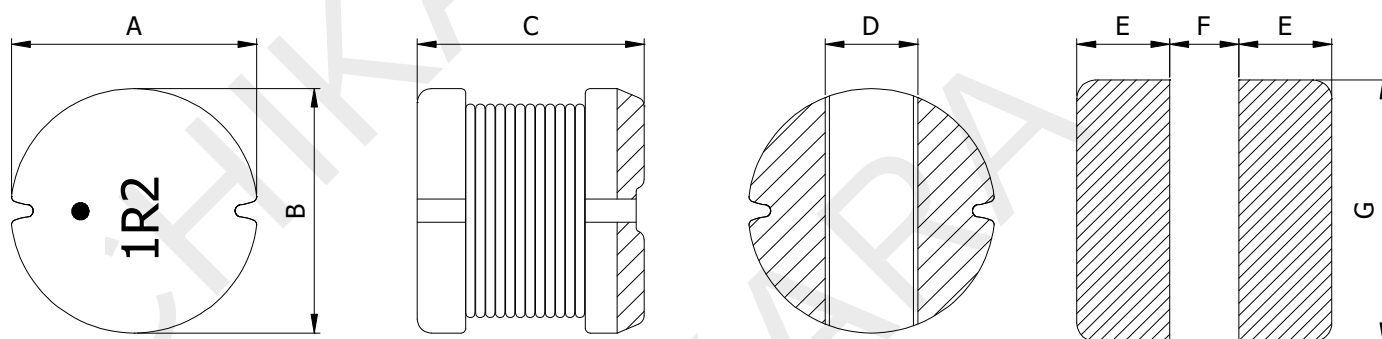


Features

- High energy storage and very low resistance
- 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:1500pcs. Per 13-inch reel
- RoHs&Halogen-free compliant



Mechanical Dimension(Unit:mm)



Recommended Layout

A	B	C	D	E	F	G
Ø5.8Max.	Ø5.8Max.	4.8Max.	2.3Typ.	2.1	1.8	5.8

Part Number Description

SP03 - 0605 1R2 M

① ② ③ ④

①	Type
②	Dimensions
③	Inductance value
④	Tolerance code

Electrical Schematic

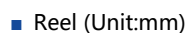


Electrical Characteristic

Part Number	Inductance L0(uH)	Q Typ.	Q Freq.(MHz)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Typ.	Irms (A)Max.
SP03-06051R2M	1.2±20%	35	7.96	155	0.02	7.30	4.20
SP03-06051R5M	1.5±20%	32	7.96	108	0.03	6.10	3.60
SP03-06052R2M	2.2±20%	33	7.96	79	0.06	5.10	2.80
SP03-06052R7M	2.7±20%	22	7.96	65	0.06	3.80	2.30
SP03-06053R3M	3.3±20%	22	7.96	60	0.07	3.50	2.00
SP03-06053R9M	3.9±20%	22	7.96	40	0.07	3.20	1.90
SP03-06054R7M	4.7±20%	20	7.96	34	0.08	3.00	1.80
SP03-06055R6M	5.6±20%	20	7.96	30	0.08	2.70	1.70
SP03-06056R8M	6.8±20%	20	7.96	28	0.12	2.50	1.60
SP03-06058R2M	8.2±20%	20	7.96	26	0.09	2.30	1.50
SP03-0605100M	10±20%	30	2.52	23	0.10	2.00	1.45
SP03-0605120M	12±20%	30	2.52	22	0.12	1.90	1.40
SP03-0605150K	15±10%	30	2.52	20	0.14	1.60	1.30
SP03-0605180K	18±10%	30	2.52	18	0.15	1.50	1.25
SP03-0605220K	22±10%	30	2.52	16	0.19	1.40	1.10
SP03-0605270K	27±10%	28	2.52	14	0.22	1.30	1.00
SP03-0605330K	33±10%	24	2.52	13	0.25	1.10	0.88
SP03-0605390K	39±10%	24	2.52	13	0.32	1.00	0.80
SP03-0605470K	47±10%	22	2.52	12	0.37	1.00	0.72
SP03-0605560K	56±10%	22	2.52	11	0.42	0.90	0.68
SP03-0605680K	68±10%	22	2.52	10	0.52	0.84	0.62
SP03-0605820K	82±10%	20	2.52	9	0.60	0.75	0.58
SP03-0605101K	100±10%	20	0.796	9	0.70	0.68	0.52
SP03-0605121K	120±10%	22	0.796	7	0.93	0.60	0.48
SP03-0605151K	150±10%	20	0.796	6	1.10	0.54	0.40
SP03-0605181K	180±10%	20	0.796	6	1.38	0.50	0.38
SP03-0605221K	220±10%	20	0.796	6	1.57	0.44	0.35
SP03-0605271K	270±10%	26	0.796	4	1.88	0.40	0.32
SP03-0605331K	330±10%	25	0.796	3	2.25	0.36	0.27
SP03-0605391K	390±10%	25	0.796	3	2.48	0.34	0.25
SP03-0605471K	470±10%	25	0.796	3	3.30	0.30	0.21
SP03-0605561K	560±10%	24	0.252	3	4.00	0.26	0.18
SP03-0605681K	680±10%	26	0.252	2	4.65	0.25	0.16
SP03-0605821K	820±10%	25	0.252	2	5.20	0.20	0.14
SP03-0605102K	1000±10%	45	0.252	1.5	6.80	0.12	0.12

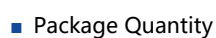
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

- Carrier Tape (Unit:mm)



- Taping Method

✖ Packing is referred to the international standard IEC 60286-3.



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Version:A2 Revised:11/24/2022

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.