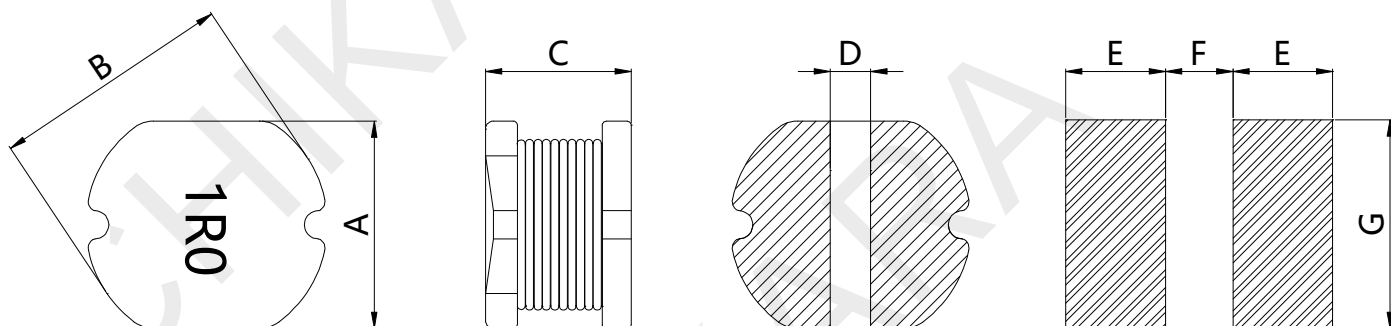


Features

- 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:2000pcs. Per 13-inch reel
- RoHs&Halogen-free compliant



Mechanical Dimension(Unit:mm)



Recommended Layout

A	B	C	D	E	F	G
4.0±0.3	Ø4.5±0.3	3.2±0.3	1.5Typ.	1.75	1.5	4.5

Part Number Description

SP03 - 0503 A 1R0 M
① ② ③ ④ ⑤

①	Type
②	Dimensions
③	Shape code
④	Inductance value
⑤	Tolerance code

Electrical Schematic

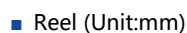


Electrical Characteristic

Part Number	Inductance L0(μH)	DCR (Ω)Typ.	DCR (Ω)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Max.
SP03-0503A1R0M	1.0±20%	0.014	0.024	110	5.72	4.00
SP03-0503A1R5M	1.5±20%	0.022	0.032	103	5.04	3.40
SP03-0503A1R8M	1.8±20%	0.028	0.039	95	3.60	2.70
SP03-0503A2R2M	2.2±20%	0.034	0.047	85	3.38	2.50
SP03-0503A2R7M	2.7±20%	0.039	0.065	72	2.97	2.25
SP03-0503A3R3M	3.3±20%	0.041	0.074	65	2.88	2.00
SP03-0503A3R9M	3.9±20%	0.054	0.080	61	2.57	1.88
SP03-0503A4R7M	4.7±20%	0.059	0.087	50	2.46	1.82
SP03-0503A5R6M	5.6±20%	0.069	0.102	48	2.43	1.58
SP03-0503A6R8M	6.8±20%	0.076	0.120	41	2.10	1.54
SP03-0503A8R2M	8.2±20%	0.110	0.142	38	1.80	1.50
SP03-0503A100M	10±20%	0.118	0.172	37	1.74	1.45
SP03-0503A120M	12±20%	0.156	0.197	32	1.62	1.28
SP03-0503A150K	15±10%	0.204	0.235	26	1.46	1.20
SP03-0503A180K	18±10%	0.225	0.309	23	1.29	1.10
SP03-0503A220K	22±10%	0.261	0.351	20	1.22	1.00
SP03-0503A270K	27±10%	0.328	0.419	20	1.00	0.94
SP03-0503A330K	33±10%	0.370	0.485	20	0.90	0.86
SP03-0503A390K	39±10%	0.418	0.561	18	0.87	0.77
SP03-0503A470K	47±10%	0.523	0.631	16	0.77	0.68
SP03-0503A560K	56±10%	0.714	0.920	15	0.75	0.64
SP03-0503A680K	68±10%	0.754	1.117	13	0.68	0.56

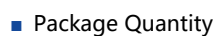
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

- Carrier Tape (Unit:mm)



- Taping Method

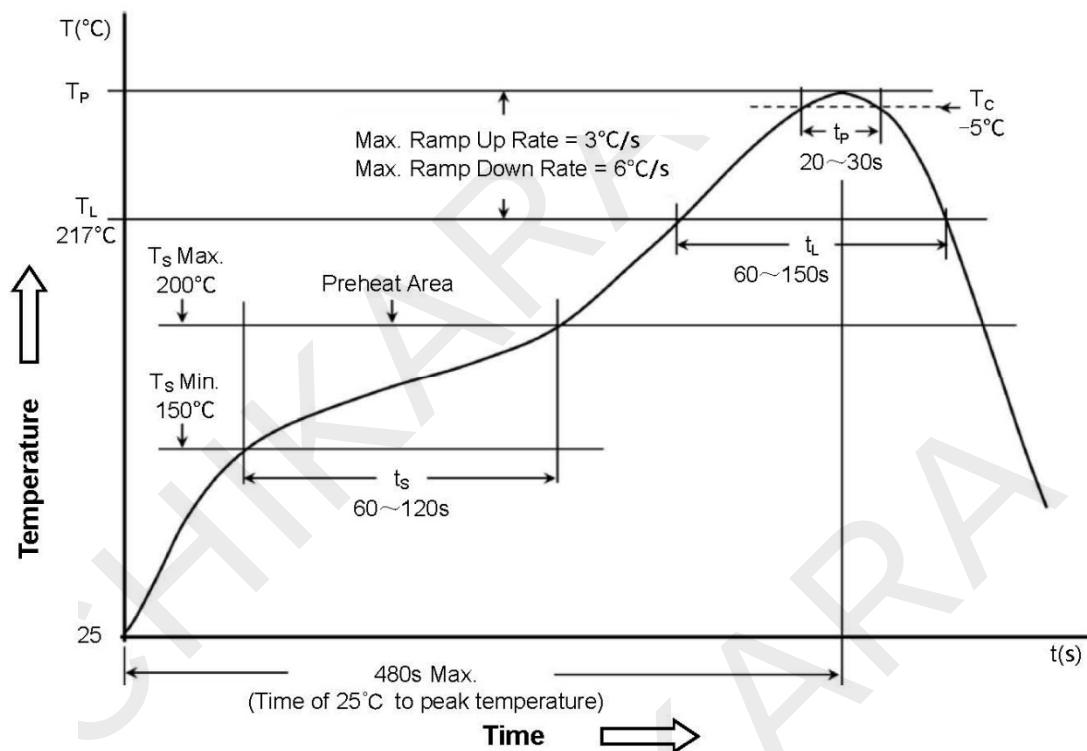
✖ Packing is referred to the international standard IEC 60286-3.



Tel:+86(769)-82553009 Fax:+86(769)-82553010
E-mail: sales@chikaracoil.com Web:www.chikaracoil.com
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.