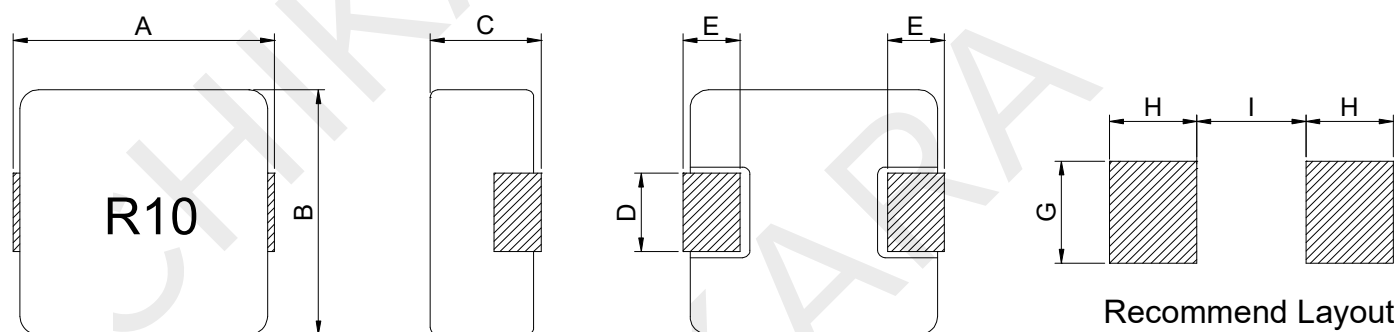


Features

- 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
4.4±0.35	4.2±0.3	2.0Max.	2.0±0.3	0.8±0.3	2.5	1.5	2.2

Part Number Description

SP14 - 047020 R10 M
① ② ③ ④

①	Type
②	Dimensions
③	Inductance value
④	Tolerance code

Electrical Schematic



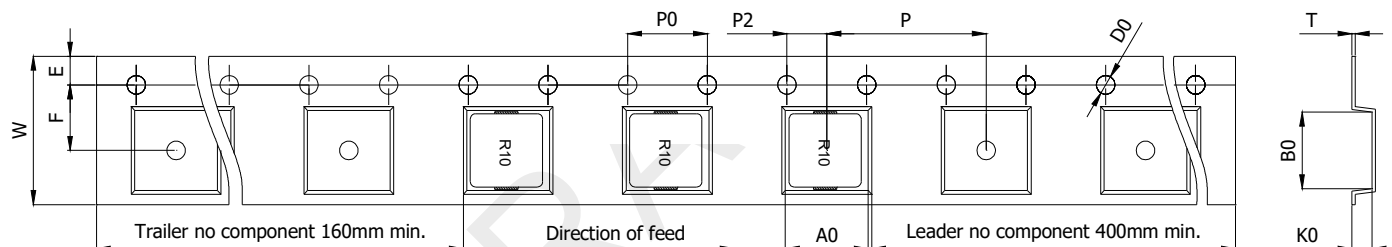
Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.
SP14-047020R10M	0.10±20%	3.90	4.50	300	22.0	13.0
SP14-047020R22M	0.22±20%	5.80	6.80	148	12.5	9.50
SP14-047020R33M	0.33±20%	9.20	11.0	126	12.0	10.0
SP14-047020R47M	0.47±20%	11.0	14.0	100	9.50	7.50
SP14-047020R56M	0.56±20%	12.5	16.0	92	9.00	7.00
SP14-047020R68M	0.68±20%	15.0	18.0	85	8.00	7.00
SP14-047020R10M	1.0±20%	23.5	28.0	63	7.00	6.00
SP14-047020R2M	1.2±20%	25.5	30.0	59	6.50	6.00
SP14-047020R5M	1.5±20%	38.0	46.0	45	5.50	5.00
SP14-047020R2M	2.2±20%	45.0	58.0	39	5.00	4.50
SP14-047020R3M	3.3±20%	75.0	88.0	35	3.50	3.30
SP14-047020R7M	4.7±20%	85.0	105	28	3.00	2.80
SP14-047020R8M	6.8±20%	145	175	25	2.50	2.40
SP14-047020R2M	8.2±20%	185	250	22	2.00	1.80
SP14-047020R100M	10±20%	200	282	20	2.00	1.60

- 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.

Packaging Specification

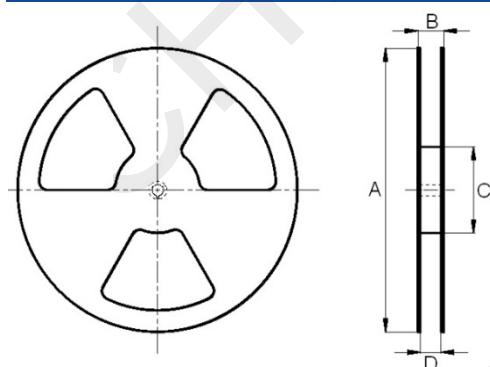
■ Carrier Tape (Unit:mm)



W	P	A0	B0	K0	E	F	P0	P2	D0	T
12.0±0.3	8.0±0.1	4.6±0.1	5.2±0.1	2.1±0.1	1.75±0.1	5.5±0.1	4.0±0.1	2.0±0.1	Φ1.5±0.1	0.30±0.05

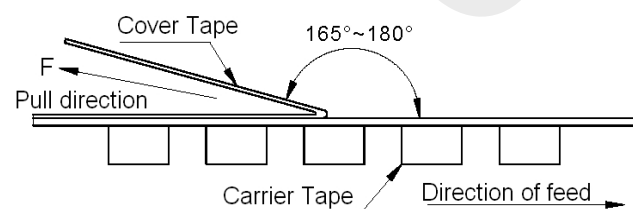
■ Reel (Unit:mm)

A	B	C	D
Φ330±1.0	18.4Max.	Φ100±1.0	13.0±0.5



■ Taping Method

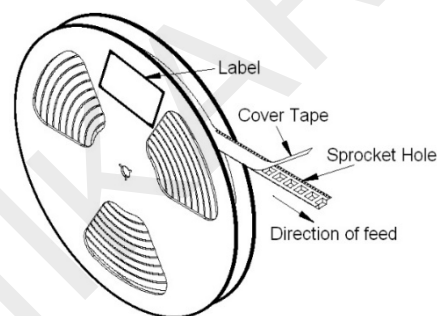
Peel-off strength	Peel-off angle	Peel-off speed
F=0.1N~1.3N	165°~180°	300mm/min.



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

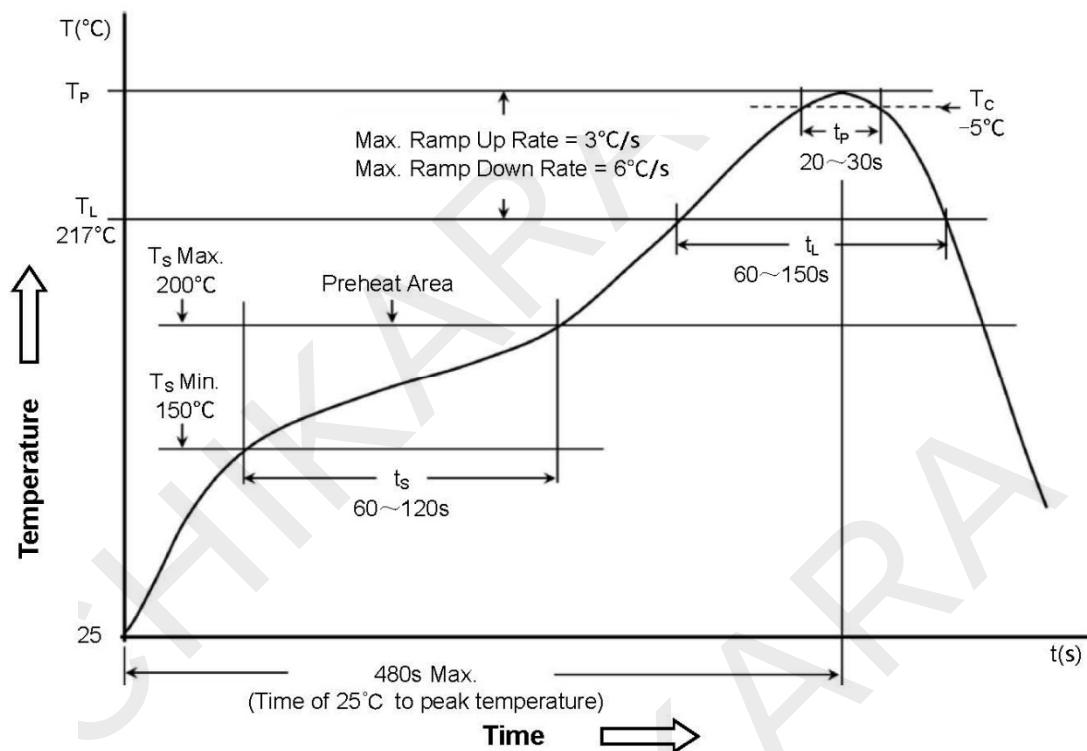
■ Package Quantity

Parts per reel
3000Pcs



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.