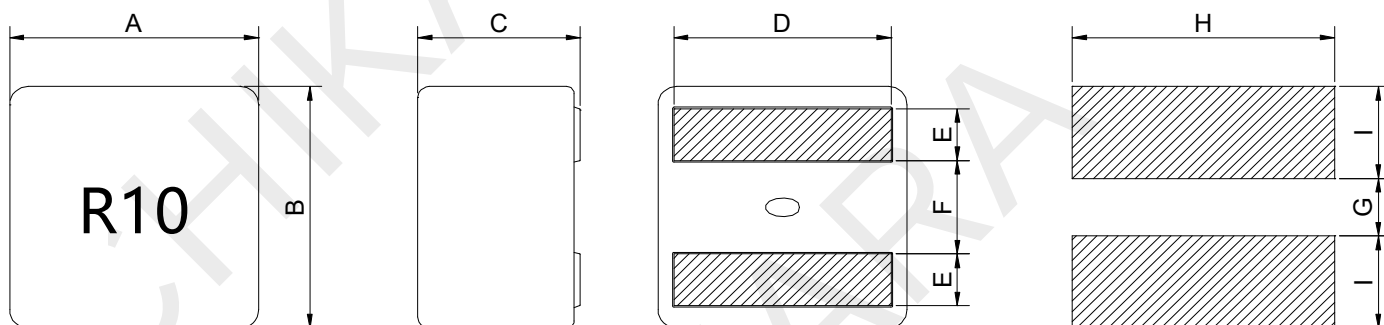


Features

- Compact design, Flat wire
- 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)



Recommended Layout

A	B	C	D	E	F	G	H	I
4.1±0.3	4.1±0.3	1.8±0.3	3.4±0.3	0.88±0.3	1.7±0.3	1.3	3.8	1.2

Part Number Description

SP16 - 040020 A R10 M
① ② ③ ④ ⑤

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

Electrical Schematic



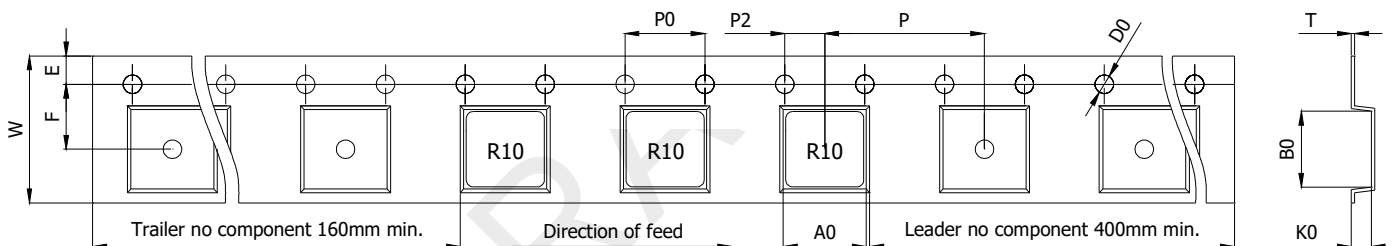
Electrical Characteristic

Part Number	Inductance L0(uH)	DCR		SRF (MHz)Typ.	Isat		Irms	
		(mΩ)Max.	(mΩ)Typ.		(A)Max.	(A)Typ.	(A)Max.	(A)Typ.
SP16-040020AR10M	0.10±20%	2.5	2.2	290	33.0	38.0	13.5	18.0
SP16-040020AR22M	0.22±20%	4.6	4.0	160	18.8	19.5	13.0	16.8
SP16-040020AR36M	0.36±20%	6.5	5.5	120	14.5	17.0	11.0	14.5
SP16-040020AR40M	0.40±20%	7.8	6.8	105	13.5	15.5	10.0	14.0
SP16-040020AR47M	0.47±20%	8.6	7.8	95	13.0	14.5	9.0	12.5
SP16-040020AR56M	0.56±20%	9.3	8.2	85	12.6	14.0	8.5	12.0
SP16-040020AR60M	0.60±20%	9.6	8.4	82	12.3	13.7	8.0	11.7
SP16-040020AR72M	0.72±20%	11.9	10.2	76	10.6	12.0	7.6	10.5
SP16-040020A1R0M	1.0±20%	14.6	13.0	60	8.8	9.6	6.8	9.6
SP16-040020A1R2M	1.2±20%	17.9	15.8	55	7.8	9.0	6.6	9.0
SP16-040020A1R5M	1.5±20%	23.5	20.8	52	7.4	8.0	5.8	7.6
SP16-040020A1R8M	1.8±20%	28.0	24.7	45	7.0	7.5	5.2	7.0
SP16-040020A2R2M	2.2±20%	38.7	34.2	36	6.0	6.5	4.6	5.6

- Test frequency and voltage:100KHz,0.1Vrms.
- 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

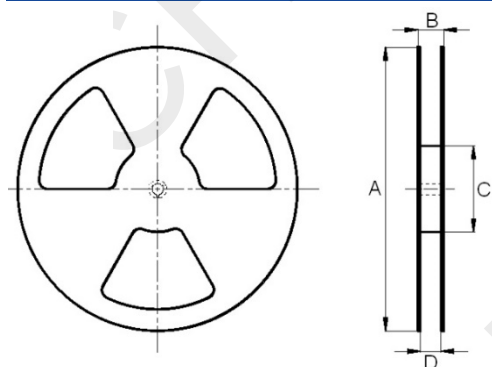
■ Carrier Tape (Unit:mm)



W	P	A0	B0	K0	E	F	P0	P2	D0	T
12.0±0.3	8.0±0.1	4.4±0.1	4.4±0.1	2.3±0.1	1.75±0.1	5.5±0.1	4.0±0.1	2.0±0.1	Φ1.5±0.1	0.35±0.05

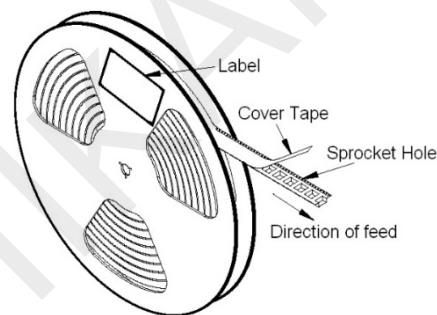
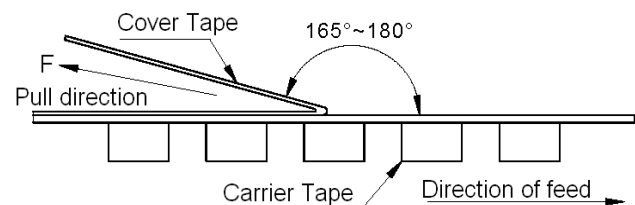
■ Reel (Unit:mm)

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.