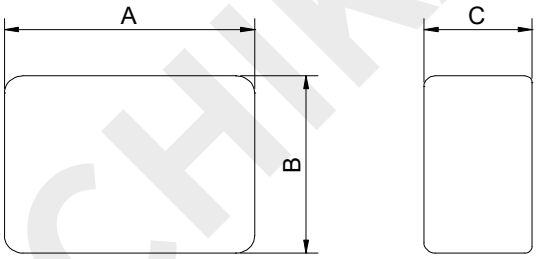
Shielded Power Inductors

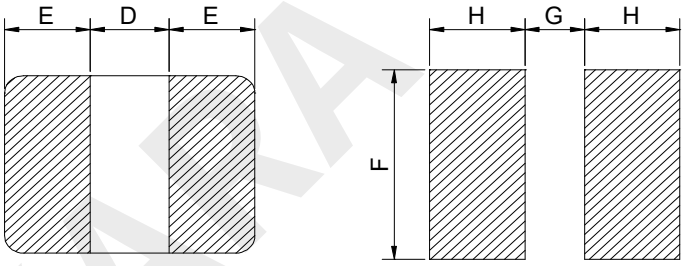
SP16-201608 Type

Features

- Compact design, Flat wire
- Storage temperature range:-55℃ to + 125℃
- Operating temperature range:-55℃ to + 125℃ (including coil's self-temperature rise)
- Moisture sensitivity level:1
- Packaging:3000pcs. Per 7-inch reel
- RoHs&Halogen-free compliant

Mechanical Dimension(Unit:mm)





Recommended Layout

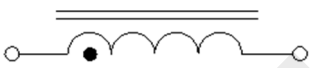
A	B	C	D	E	F	G	H
2.0±0.2	1.6±0.2	0.9Max.	0.6±0.2	0.7±0.2	1.8	0.5	0.85

Part Number Description

SP16 - 201608 R22 M
① ② ③ ④

①	Type
②	Dimensions
③	Inductance value
④	Tolerance code

Electrical Schematic



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

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Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Max.	(mΩ)Typ.	(A)Max.	(A)Typ.	(A)Max.	(A)Typ.
SP16-201608R22M	0.22±20%	19	14	5.6	6.1	5.9	6.6
SP16-201608R24M	0.24±20%	20	14	5.5	6.0	5.8	6.5
SP16-201608R33M	0.33±20%	24	18	5.3	5.8	4.8	5.5
SP16-201608R47M	0.47±20%	27	24	5.0	5.5	4.4	4.6
SP16-201608R68M	0.68±20%	44	39	4.2	4.6	3.5	3.8
SP16-2016081R0M	1.0±20%	60	53	3.1	3.3	3.3	3.6
SP16-2016081R5M	1.5±20%	85	73	2.8	3.0	2.8	3.1
SP16-2016082R2M	2.2±20%	140	123	2.3	2.5	2.0	2.2
SP16-2016083R3M	3.3±20%	220	200	1.8	2.1	1.5	1.8
SP16-2016084R7M	4.7±20%	290	260	1.5	1.7	1.4	1.6

- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Absolute maximum voltage: 20Vdc.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40℃.
- 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.

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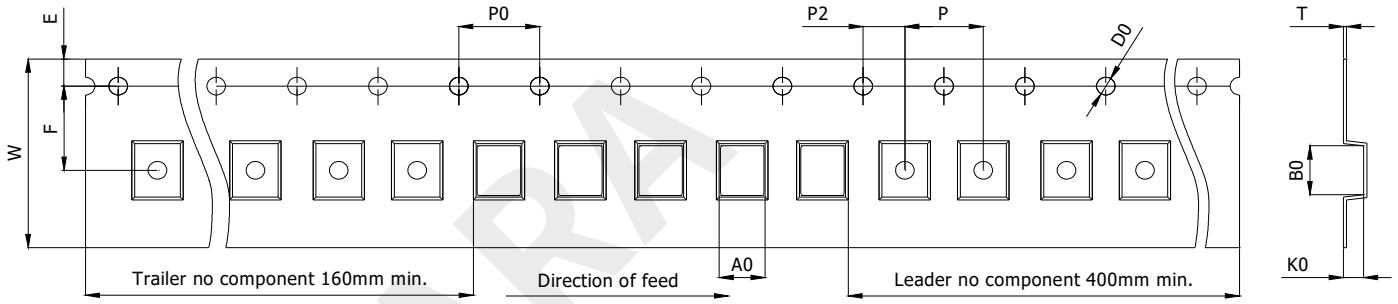
Packaging Specification

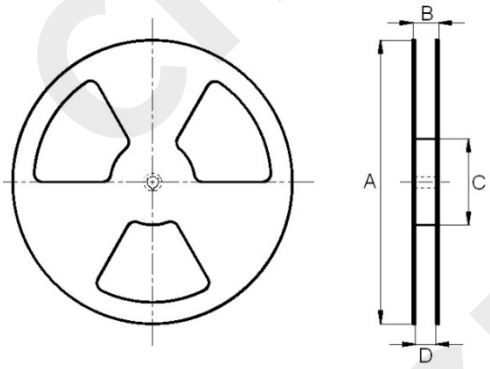
■ Carrier Tape (Unit:mm)



W	P	A0	B0	K0	E	F	P0	P2	D0	T
8.0±0.3	4.0±0.1	1.9±0.1	2.35±0.1	1.0±0.1	1.75±0.1	3.5±0.1	4.0±0.1	2.0±0.1	Φ1.5±0.1	0.25±0.05

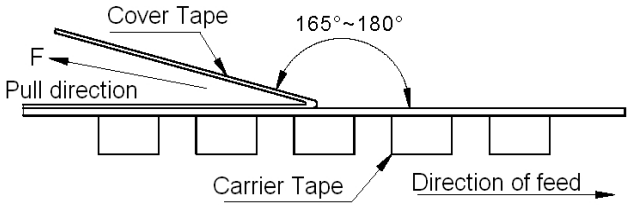
■ Reel (Unit:mm)

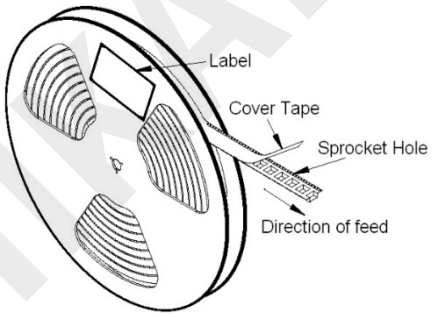
A	B	C	D
Φ178±2.0	11.5Max.	Φ50Min.	9.0±0.5



■ Taping Method

Peel-off strength	Peel-off angle	Peel-off speed
F=0.1N~1.0N	165°~180°	300mm/min.





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

■ Package Quantity

Parts per reel
3000Pcs

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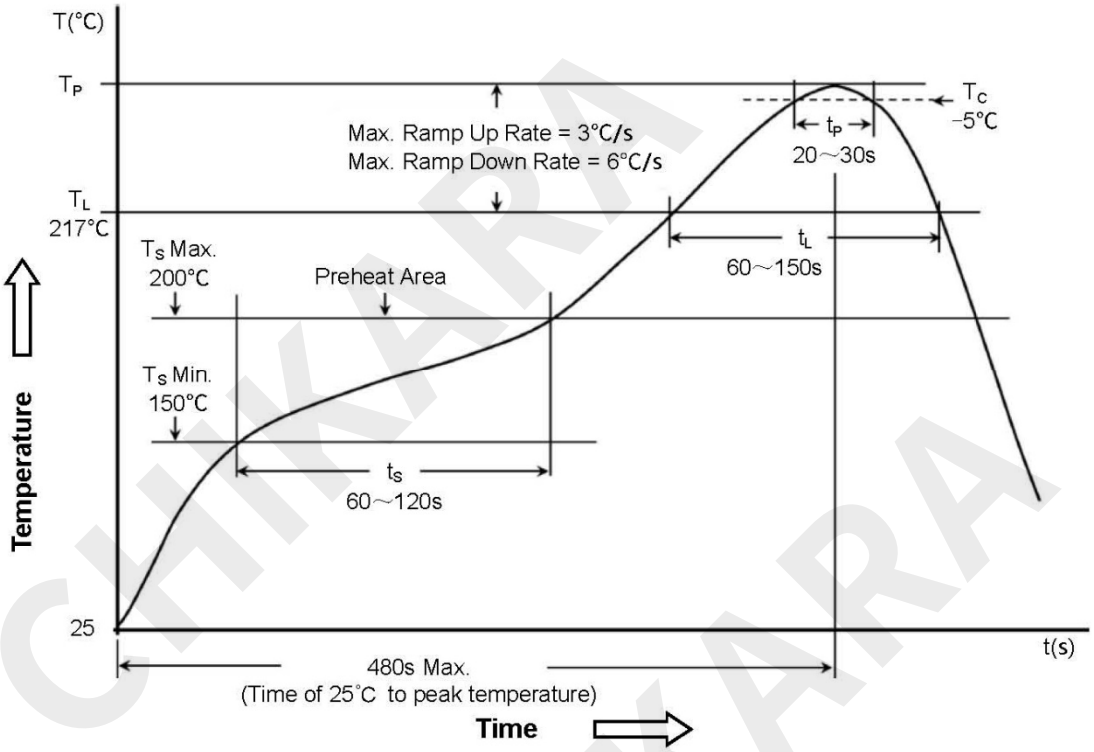
Soldering Specification

■ Reflow profile for SMT components



■ Classification of peakpackage bodytemperature (T_P)

	Package Thickness	Package Volume		
		<350mm³	350~2000mm³	>2000mm³
PB-Free Assembly	<1.6mm	260℃	260℃	260℃
	1.6~2.5mm	260℃	250℃	245℃
	≥2.5mm	250℃	245℃	245℃

※ Reflow is referred to standard IPC/JEDEC J-STD-020D.

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