

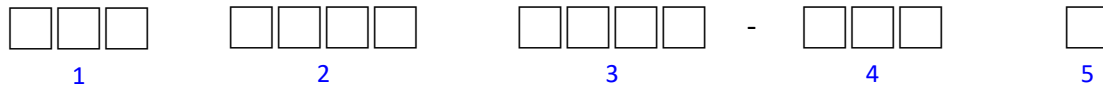
⊕ Feature

- High impedance at high frequency effects excellent noise suppression performance.
- The choke coils structure enables noise suppression without degrading the signal.

⊕ Applications

The SCMF Series is SMD common mode filter specifically designed to eliminate common mode noise in USB 2.0, IEEE1394, and LVDS applications.

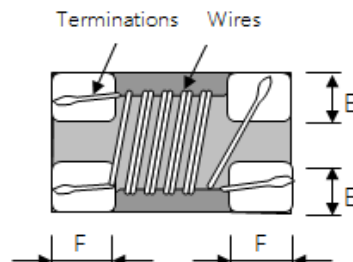
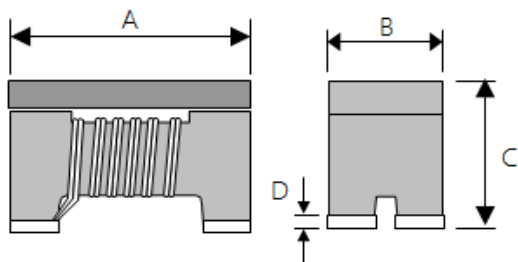
⊕ Product Identification :



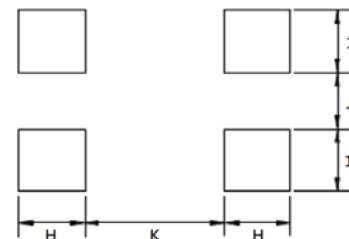
Series name	Dimensions(WxLxH)		Internal code
SCMF	3225	3.2*2.5*2.2mm	P2 = 2 set of wires
	4532	4.5*3.2*2.8mm	U3=USB3.0
			:
			SD = Standard

Impedance		Tolerance	
101	100 Ω	K	10%
301	300 Ω	M	20%
701	700 Ω	Y	25%
102	1000 Ω	N	30%

⊕ Shapes And Dimensions

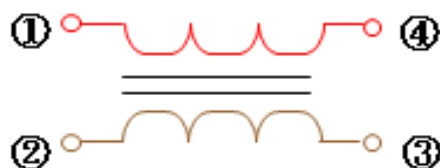


⊕ Shapes And Dimensions



Part No.	Dimensions(mm)									
	A	B	C	D	E	F	H	I	J	K
SCMF3225	3.2	2.5	2.20	0.20	0.80	0.65	0.90	0.90	0.75	1.90
	±0.2	±0.2	±0.2	±0.1	Typ	Typ	Typ	Typ	Typ	Typ
SCMF4532	4.5	3.2	2.80	0.20	1.20	1.00	1.35	1.32	0.75	2.40
	±0.2	±0.2	±0.2	±0.1	Typ	Typ	Typ	Typ	Typ	Typ

⊕ Equivalent Circuit Schematic :



⊕ Material List :

No.	Supplier	Location	Material
1	RSiN	Core	Ferrite SM
2	Elektrisola	Wire	2UEW
3	GAOXIN	Solder	Sn99.3 Cu0.7

1. Operating temperature -25°C ~ +85°C
2. Storage conditions -25°C ~ +85°C

⊕ Electrical Characteristics :

Part No.	Impedance(N1=N2) (Ω) at 100MHz	DCR(N1=N2) (Ω)	Rated Current (A)	Insulation Resistance (MΩ)	Rated Volt. (V)
SCMF3225P2SD-800	80 ±20% / ±25%	0.15 Max	2.0 Max	10 Min	50 Typ
SCMF3225P2SD-601	600 ±20% / ±25%	0.25 Max	1.0 Max	10 Min	50 Typ
SCMF3225P2SD-102	1000 ±20% / ±25%	0.35 Max	1.2 Max	10 Min	50 Typ
SCMF3225P2SH-601	600 ±20% / ±25%	0.08 Max	1.5 Max	10 Min	50 Typ
SCMF3225P2SH-102	1000 ±20% / ±25%	0.10 Max	1.2 Max	10 Min	50 Typ
SCMF3225P2LD-102	1000 ±20% / ±25%	0.055 Max	1.2 Max	10 Min	50 Typ

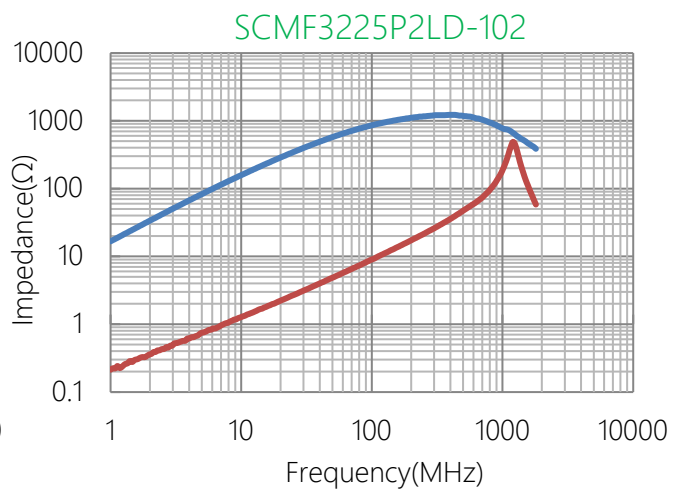
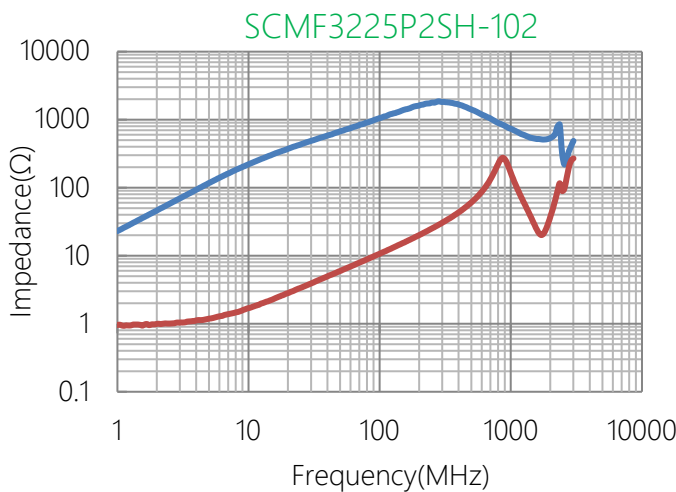
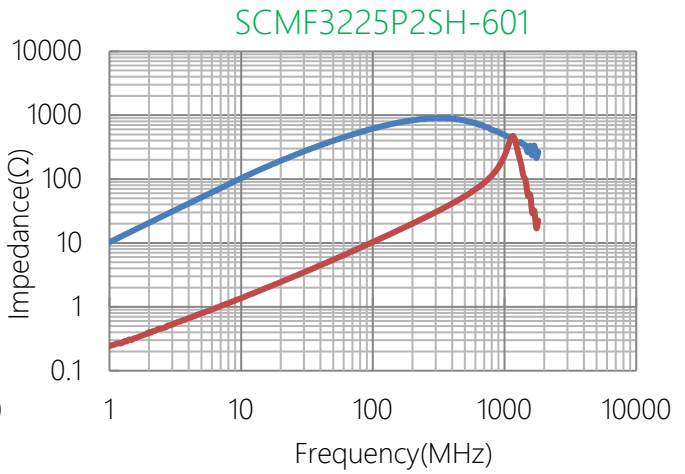
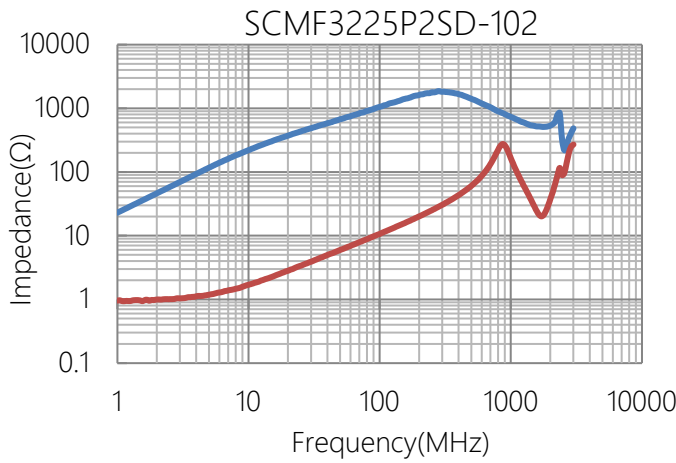
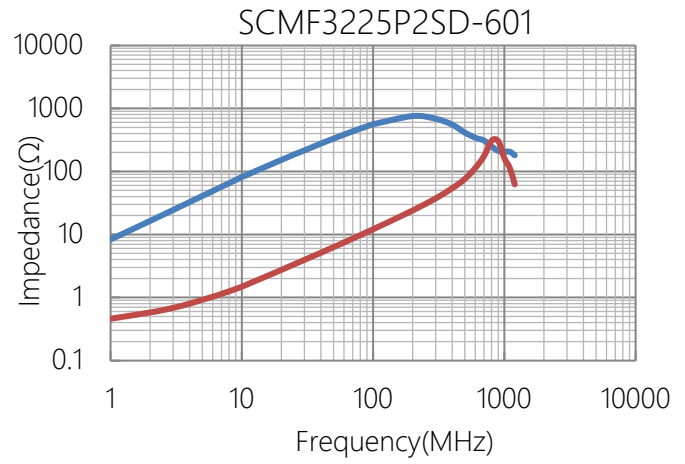
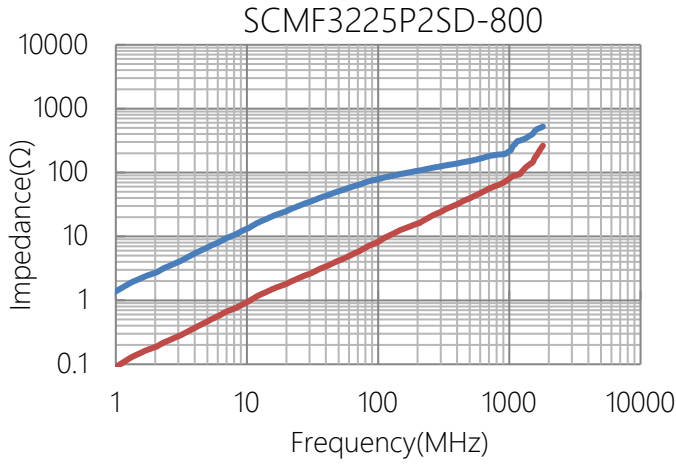
⊕ **Electrical Characteristics :**

Part No.	Impedance(N1=N2) (Ω) at 100MHz	DCR(N1=N2) (Ω)	Rated Current (A)	Insulation Resistance (MΩ)	Rated Volt. (V)
SCMF4532P2SD-800	80 ±20% / ±25%	0.07 Max	3.0 Max	10 Min	50 Typ
SCMF4532P2SD-121	120 ±20% / ±25%	0.07 Max	3.0 Max	10 Min	50 Typ
SCMF4532P2SD-201	200 ±20% / ±25%	0.10 Max	2.0 Max	10 Min	50 Typ
SCMF4532P2SD-601	600 ±20% / ±25%	0.15 Max	1.5 Max	10 Min	50 Typ
SCMF4532P2SD-801	800 ±20% / ±25%	0.35 Max	1.0 Max	10 Min	50 Typ
SCMF4532P2SD-102	1000 ±20% / ±25%	0.40 Max	1.0 Max	10 Min	50 Typ

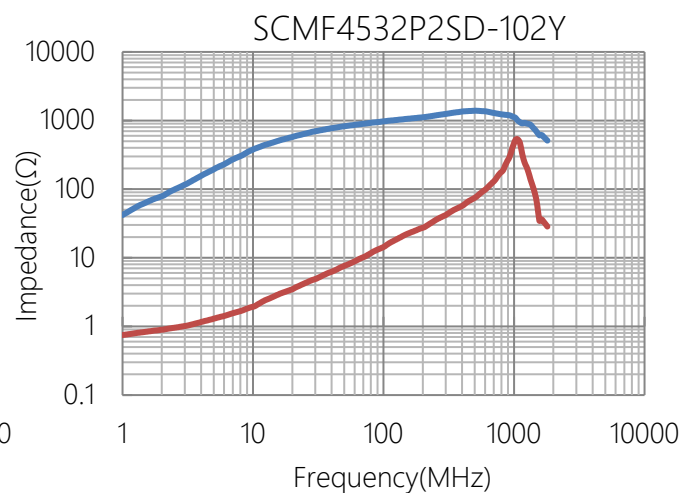
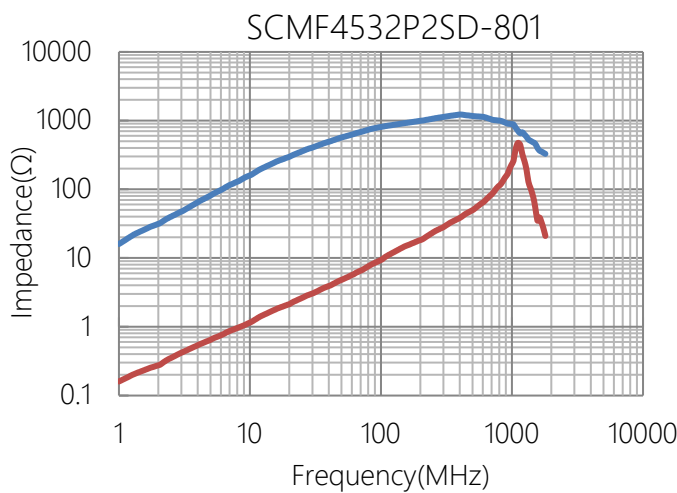
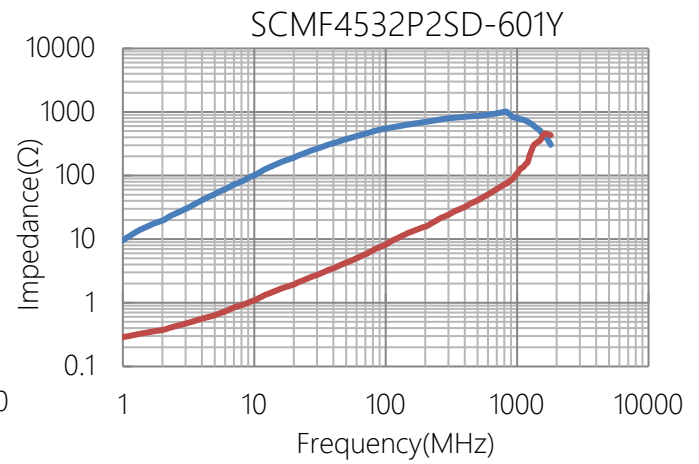
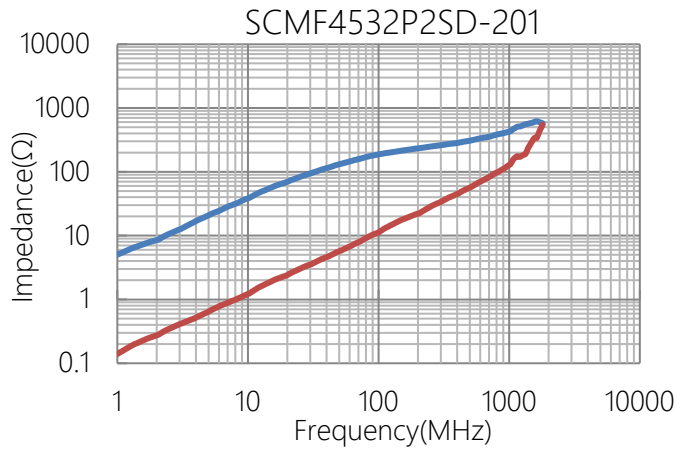
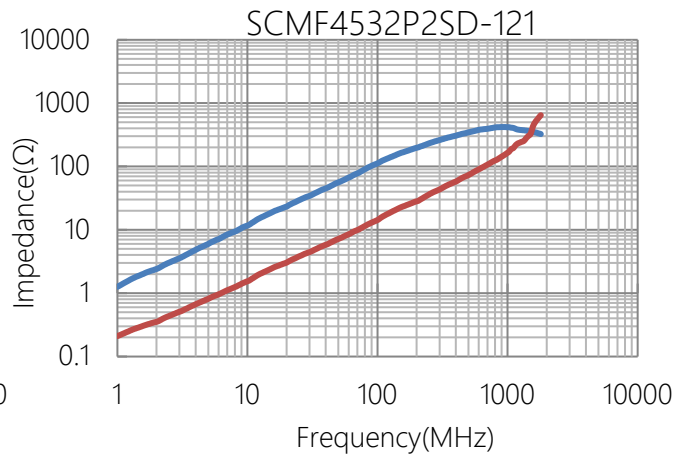
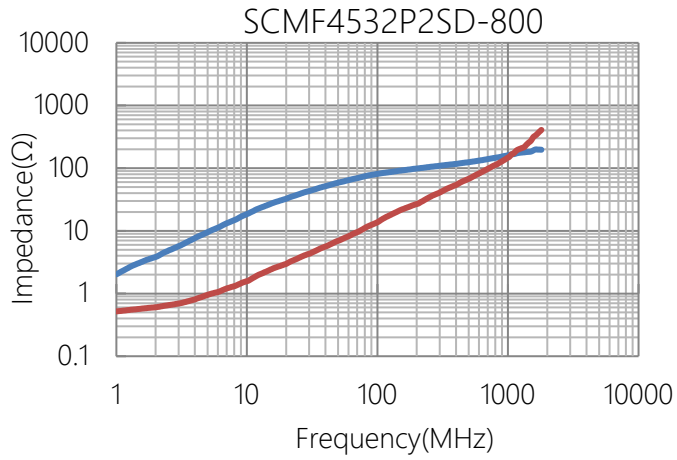
※IDC: The actual value of D.C. current when the temperature rise is $\Delta t = 40^{\circ}\text{C}$ ($T_a = 20^{\circ}\text{C}$).

※Test Instrument: Impedance(Agilent 4291A) 、DCR(Chroma 16502) 、I.R(Chroma 19073).

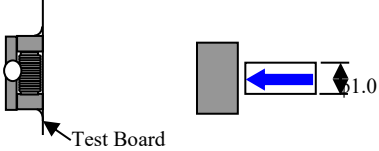
⊕ Test Curve



⊕ Test Curve



⊕ Mechanical Reliability

Item	Conditions	Specification
Solderability	Solder heat proof: Preheating: 150 ±10°C 60 seconds Soldering: 245 ±5°C for 4 ±1 sec	The surface of terminal/pin tested shall be covered with new solder by 90%
Solder Heat Resistance	Preheating:150°C 60secs Solder temperature: 260±5°C Flux:rosin Dip time:10±0.5 secs	Impedance:within ±15% of initial value
Terminal strength	Solder a chip to test substrate and then laterally apply a force in the arrow direction 	1608~2012 Series: ≥0.5kg 3216~4532 Series: ≥1.0kg

⊕ Endurance Reliability

Item	Conditions	Specification
Thermal Shock	-65°C, (30 mins) -> room temp. (2 mins) ->125°C, (30 mins) -> room temp. (2 mins) 50 cycles	Impedance change within ± 15% Without mechanical damage
Humidity Resistance	Apply IDC current @ 60°C ambient Humidity: 90% Duration: 168 hrs	Impedance change within ± 15% Without mechanical damage
Low Temp. Storing	Storing Temp. -40 ±2 °C for total 168 +5/-0 hours	Impedance change within ± 15% Without mechanical damage
High Temp. Storing	Storing Temp. 125 ±2 °C for total 168 +5/-0 hours	Impedance change within ± 15% Without mechanical damage

标准状态Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions in making measurements and test as follows;

Ambient temperature : 5°C to 35°C, Relative humidity: 45% to 85%, Air pressure: 86kPa to 106kPa

If more strict measurement is required, measurement shall be made within following limits;

Ambient temperature : 20±2°C, Relative humidity: 65±5%, Air pressure: 86kPa to 106kPa

禁用物质Prohibited Substances

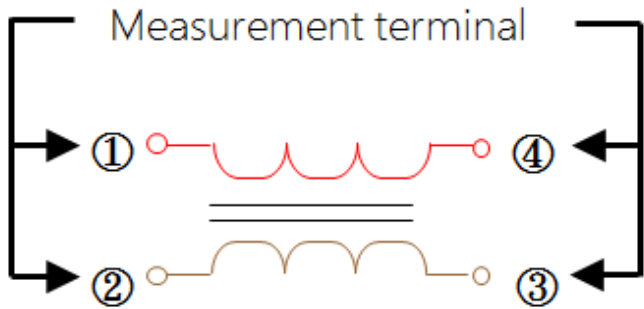
我公司保证我司的产品和生产过程符合“RoHS 规则”，所有产品中使用的材料均是化学物质生产规则中登记的材料。

We confirm that our products and our production process accord with "rule of RoHS". All materials used in this product are registered material under the law concerning the examination and Regulation of Manufacture of Chemical Substances.

⊕ Test Equipment

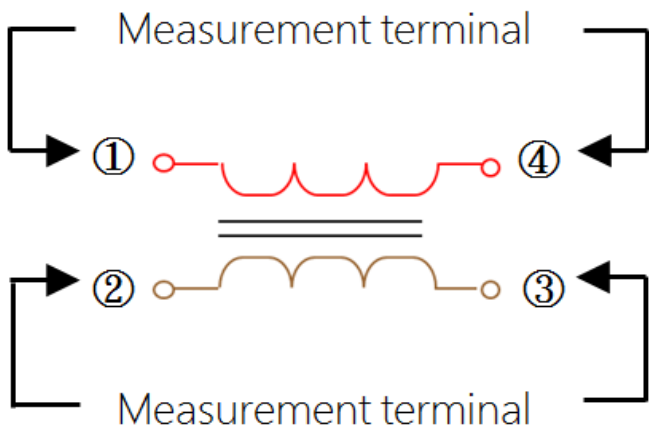
Impedance

Measured by using Agilent 4291A RF Impedance Analyzer.



DC Resistance

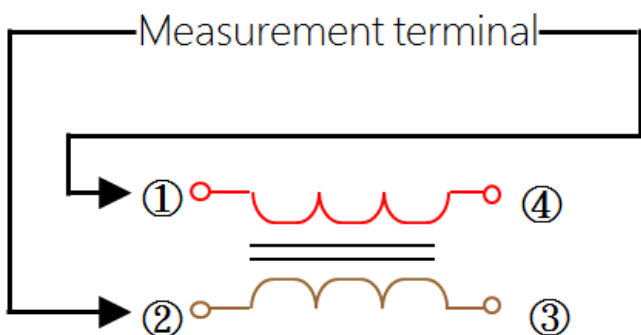
Measured by using Chroma 16502 mill ohm meter.



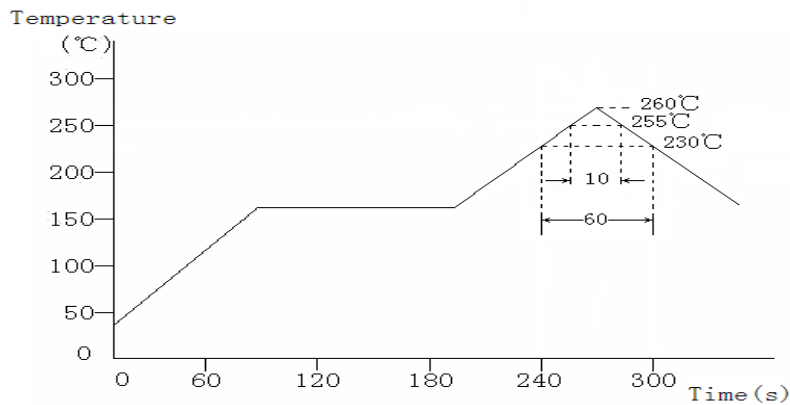
Insulation Resistance

Measured by using Chroma 19073

Measurement voltage : 50v ,Measurement time : 60 sec.

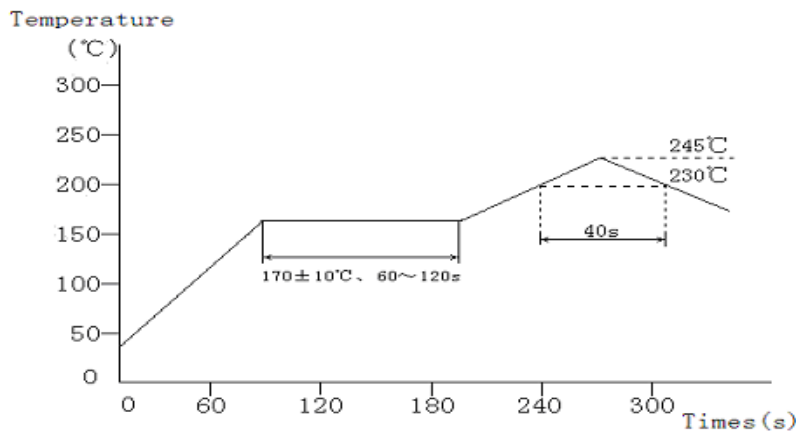


⊕ Reflow Soldering Heat Endurance



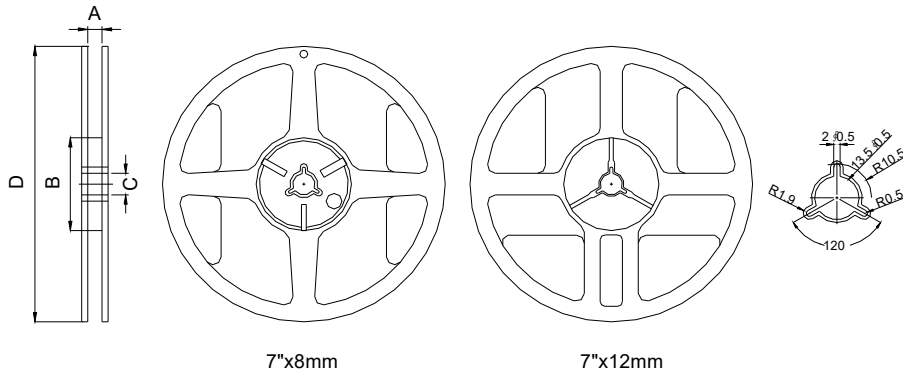
- No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours.
- Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.
- The reflow test profile may vary with the testing instruments.

⊕ Recommended Reflow Conditions



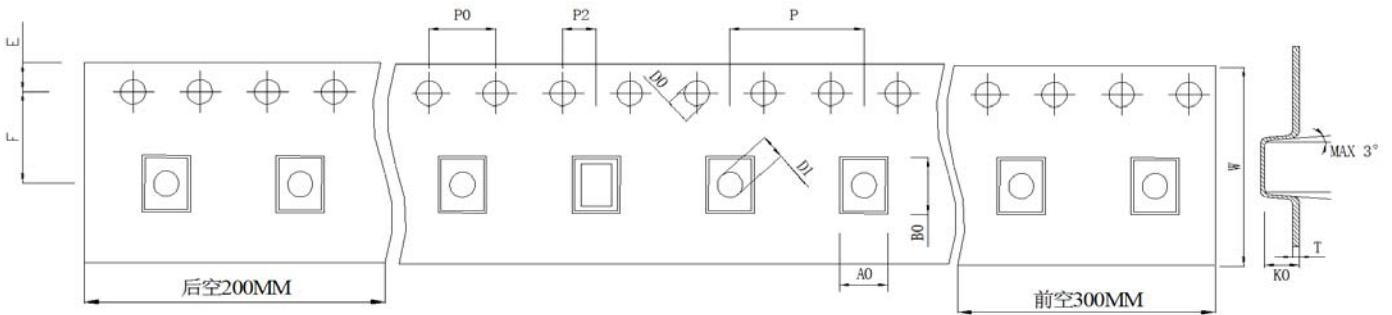
The recommended reflow profile is based on the testing instruments used. Solder ability will depend on the testing equipments, reflow conditions, testing method, etc. So it is necessary to make a confirmation of them when the reflow conditions are set up.

⊕ Reel Dimension(m/m)



Item	A(mm)	B(mm)	C(mm)	D(mm)	Type
7"x8	9.0±0.5	60±2	13.5±0.5	178±2	SCMF3225 Series
7"x12	13.5±0.5	60±2	13.5±0.5	178±2	SCMF4532 Series

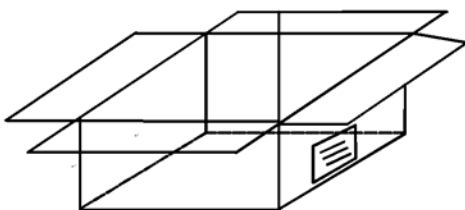
⊕ Taping Dimension(m/m)



Type	W	A0	B0	K0	E	F	P	P0
SCMF3225	8.0±0.2	2.8±0.1	3.6±0.1	2.2±0.1	1.75±0.1	3.5±0.1	4.0±0.1	4.0±0.1
	P2	D0	D1	T				
	2.0±0.1	1.0±0.1	1.5±0.3	0.35±0.05				

Type	W	A0	B0	K0	E	F	P	P0
SCMF4532	12.0±0.2	4.9±0.1	3.45±0.1	3.05±0.1	1.75±0.1	5.5±0.1	8.0±0.1	4.0±0.1
	P2	D0	D1	T				
	2.0±0.1	1.5±0.1	1.5±0.3	0.35±0.05				

⊕ Packaging Carton



Type	Packing Unit	Carton Packing Unit
SCMF3225 Series	1,000 PCS / REEL*25	25,000 PCS / Box
SCMF4532 Series	500 PCS / REEL*25	12,500 PCS / Box