Common Mode Choke
For High-Speed Differential Signal Line,General Differential Signal Line

CMC F-Series

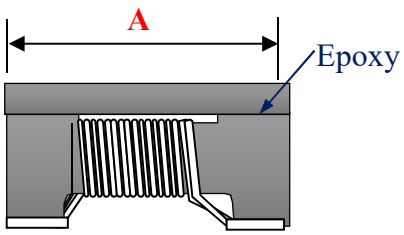
CMC2012F type

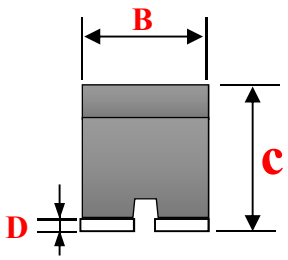
CMC2012F [0805 inch]

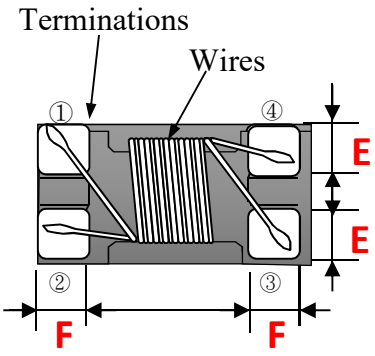
CMC2012F-Series (General differential signal line)

2017/11/1

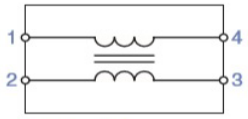
◆ SHAPE & DIMENSIONS







Equivalent circuit



No Polarity

CMC2012F	Dimensions
A	2.0 ± 0.2
B	1.2 ± 0.2
C	1.2 ± 0.2
D	0.2 ± 0.1
E	0.40 Typ
F	0.45 Typ

◆ PART NUMBER CONSTRUCTION

CMC	2012	F	–	900	–	2P	–	T
Series name	L*W*T Dimensions (mm)	F type Cut-Off Frequency		Impedance (Ω)at100MHz		Number Of Line		Taping
Common Mode Choke	2.0*1.2*1.2	1GHz		500		2P 2lines		
				670				
				900				
				121				
				161				
				181				
				221				
				261				
				371				
				801				
				901				

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature ℃	Storage Temperature ℃		
CMC2012F-Series	–40 to +85	–40 to +85	ø180	2,000

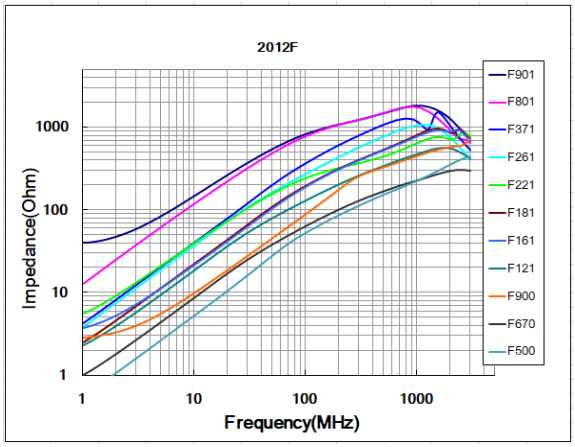
◆ ELECTRICAL CHARACTERISTICS

Impedance 100MHz (Ω)	DC Resistance (Ω) max.	Rated Voltage (V) max.	Insulation Resistance (MΩ)min.	Rated Current (mA)max.	Part No.
50±25%	0.25	50	10	400	CMC2012F-500-2P-T
67±25%	0.25	50	10	400	CMC2012F-670-2P-T
90±25%	0.30	50	10	400	CMC2012F-900-2P-T
120±25%	0.30	50	10	350	CMC2012F-121-2P-T
160±25%	0.30	50	10	350	CMC2012F-161-2P-T
180±25%	0.35	50	10	330	CMC2012F-181-2P-T
220±25%	0.35	50	10	330	CMC2012F-221-2P-T
260±25%	0.40	50	10	300	CMC2012F-261-2P-T
370±25%	0.40	50	10	280	CMC2012F-371-2P-T
800±25%	0.95	50	10	200	CMC2012F-801-2P-T
900±25%	0.95	50	10	200	CMC2012F-901-2P-T

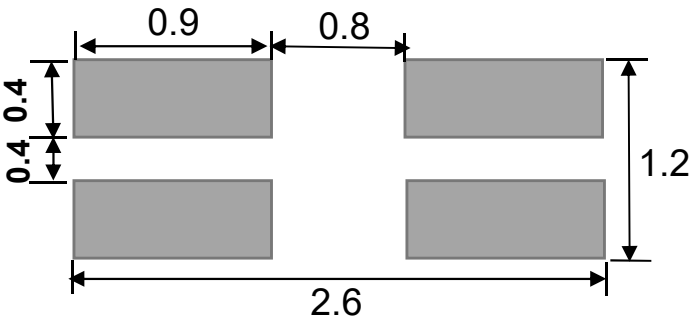
◆ Measurement Equipment

Measurement Item	Meter	Manufacturer
Common Mode Impedance	E4991A / 4287A	Agilent
DC Resistance	16502	Chroma
Insulation Resistance	4339B / 19073	Agilent / Chroma

◆ PERFORMANCE CURVES



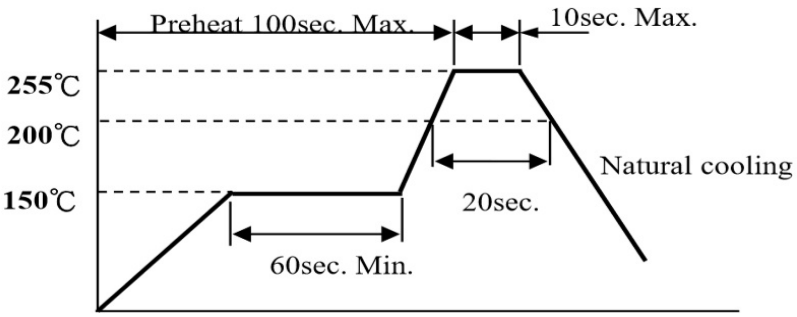
◆ Recommended Soldering Conditions (Please use this product by reflow soldering)



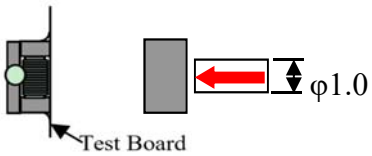
RELIABILITY

◆ RECOMMENDED REFLOW PROFILE

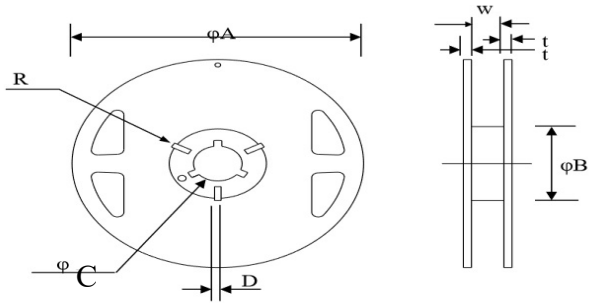
2017/11/1



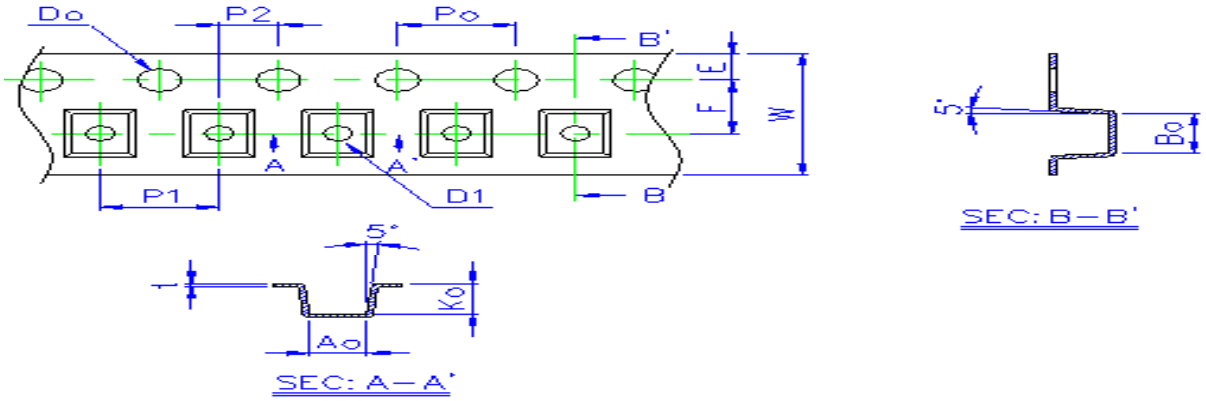
◆ MECHANICAL RELIABILITY

TEST ITEM	Specification & Requirement		Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 90%		Solder heat proof: Preheating: 150 ±10℃ 60 seconds Soldering: 245 ±5℃ for 4 ±1 sec
Solder Heat Resistance	Components should have not evidence of Impedance:within ±15% of initial value		Preheating:150℃ 60secs Flux:rosin Dip time:10±0.5 secs
Terminal strength	Series No.	F (Kg)	Solder a chip to test substrate and then laterally apply a force in the arrow direction 
	2012	0.5	
	2520	1.0	
	3216	1.0	
	3225	1.0	
	4532	1.2	
ENDURANCE RELIABILITY			
Thermal Shock	Impedance change within ± 15% Without mechanical damage		-65℃, (30 mins) -> room temp. (2 mins) 125℃, (30 mins) -> room temp. (2 mins) 50 cycles
Humidity Resistance			Apply IDC current @ 60℃ ambient Humidity: 90% Duration: 168 hrs
Low Temp. Storing			Storing Temp. -40 ±2 ℃ for total 168 +5/-0 hours
High Temp. Storing			Storing Temp. 125 ±2 ℃ for total 168 +5/-0 hours

◆ Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	W(mm)
7”x8mm	178±1	60±0.5	13.5±0.5	9.5±0.5
7”x12mm	178±1	60±1	13.3±0.5	13.7±0.5



Size	A(mm)	Ao(mm)	B(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	P2(mm)	Do(mm)	D1(mm)
2012	77	1.50±0.1	500	2.35±0.1	1.45±0.1	8.00±0.2	1.75±0.1	3.50±0.05	4.00±0.05	4.00±0.1	2.00±0.05	1.50+0.1/-0	1.00±0.1

◆ Cover Tape Peel Strength

The force for tearing off cover tape is 0.05~0.69(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35℃

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa