

Common Mode Choke

For ultra high-speed differential signal line

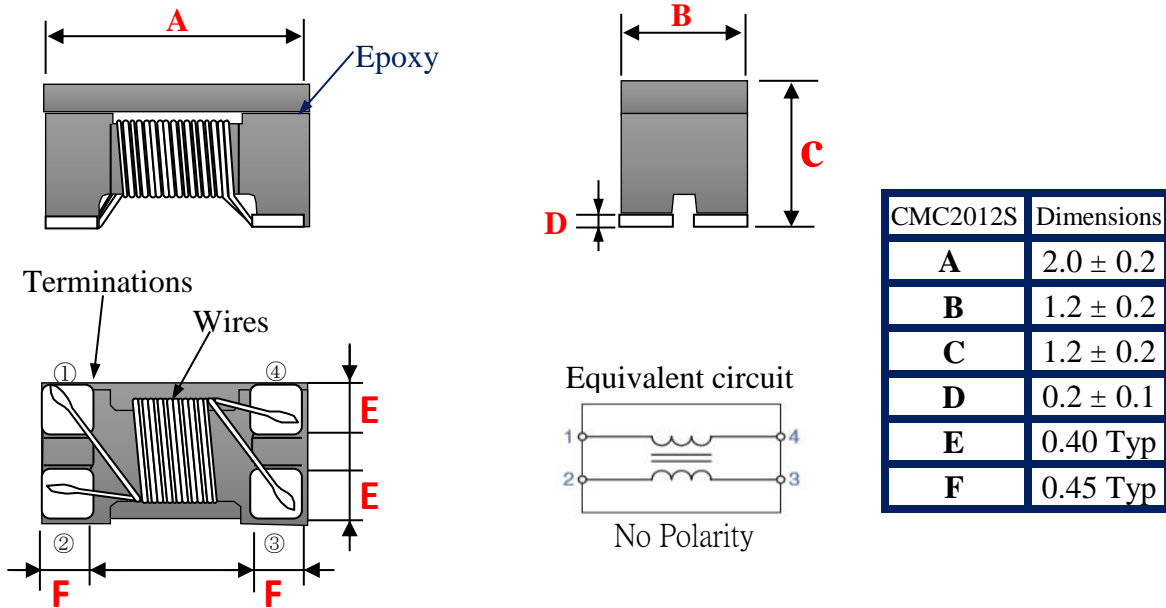
## CMC S-Series

## CMC2012S type

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CMC2012S [0805 inch]

## ◆ SHAPE & DIMENSIONS



CMC2012S	Dimensions
<b>A</b>	2.0 ± 0.2
<b>B</b>	1.2 ± 0.2
<b>C</b>	1.2 ± 0.2
<b>D</b>	0.2 ± 0.1
<b>E</b>	0.40 Typ
<b>F</b>	0.45 Typ

## ◆ PART NUMBER CONSTRUCTION

<b>CMC</b>	<b>2012</b>	<b>S</b>	—	<b>900</b>	—	<b>2P</b>	—	<b>T</b>
Series name	L*W*T Dimensions (mm)	S type Cut-Off Frequency		Impedance (Ω)at100MHz		Number Of Line		Taping
Common Mode Choke	2.0*1.2*1.2	7.5GHz		120		2P 2lines		
				240				
				250				
				320				
				600				
				900				

## ◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature ℃	Storage Temperature ℃		
CMC2012S-Series	-40 to +85	-40 to +85	ø180	2,000

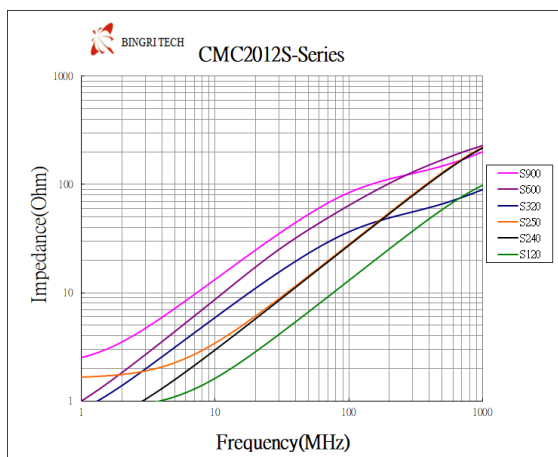
## ◆ ELECTRICAL CHARACTERISTICS

Impedance 100MHz ( $\Omega$ )	DC Resistance ( $\Omega$ ) max.	Rated Voltage (V) max.	Insulation Resistance (M $\Omega$ )min.	Cut-Off Frequency	Rated Current (mA)max	Part No.
12 $\pm$ 25%	0.25	50	10	7.5GHz	420	CMC2012S-120
24 $\pm$ 25%	0.25	50	10	7.5GHz	420	CMC2012S-240
25 $\pm$ 25%	0.22	50	10	7.5GHz	420	CMC2012S-250
32 $\pm$ 25%	0.25	50	10	7.5GHz	400	CMC2012S-320
60 $\pm$ 25%	0.30	50	10	7.5GHz	300	CMC2012S-600
90 $\pm$ 25%	0.30	50	10	7.5GHz	300	CMC2012S-900

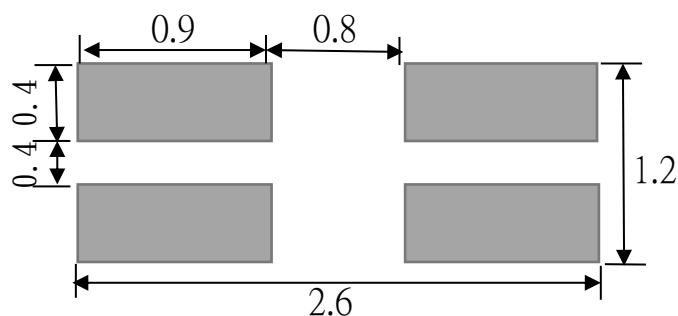
## ◆ Measurement Equipment

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)

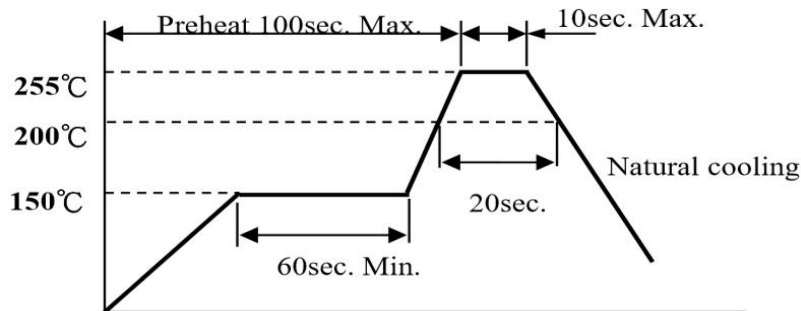


# RELIABILITY

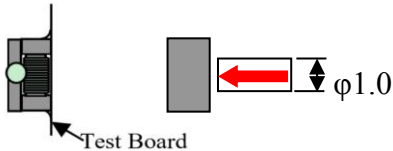


## ◆ RECOMMENDED REFLOW PROFILE

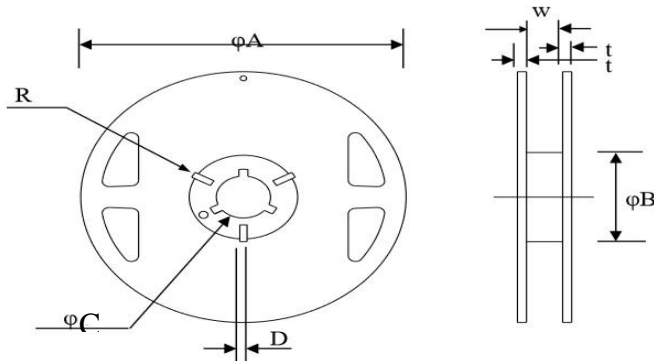
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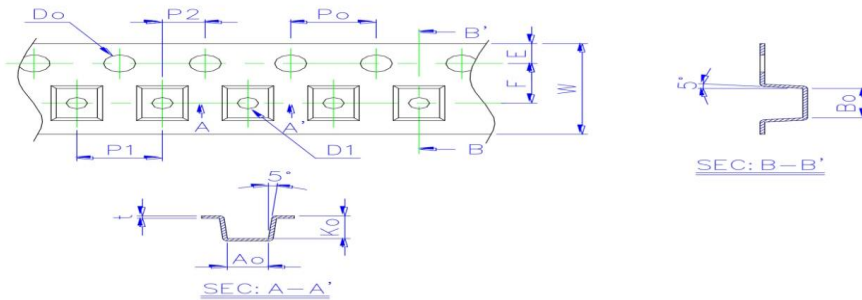
## ◆ MECHANICAL RELIABILITY

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°C 60 seconds Soldering: 245 ± 5°C for 4 ± 1 sec
Solder Heat Resistance	Components should have not evidence of Impedance: within ± 15% of initial value		Preheating: 150°C 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 
	CMC2012F/H/S	0.5	
	CMC/P3216F	1.0	
	CMC/P3225F	1.0	
	CMC/P4532F	1.2	
<b>ENDURANCE RELIABILITY</b>			
Thermal Shock	Impedance change within ± 15% Without mechanical damage		-65°C, (30 mins) -> room temp. (2 mins) 125°C, (30 mins) -> room temp. (2 mins) 50 cycles
Humidity Resistance			Apply IDC current @ 60°C ambient Humidity: 90% Duration: 168 hrs
Low Temp. Storing			Storing Temp. -40 ± 2 °C for total 168 +5/-0 hours
High Temp. Storing			Storing Temp. 125 ± 2 °C 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	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	Do(mm)
2012	1.50±0.05	2.35±0.05	1.45±0.05	8.00±0.20	1.75±0.10	3.50±0.05	4.00±0.05	4.00±0.10	1.50+0.10/-0.00
3216	1.88±0.05	3.50±0.05	2.10±0.05	8.00±0.20	1.75±0.10	3.50±0.05	4.00±0.05	4.00±0.10	1.50+0.10/-0.00
3225	2.88±0.10	3.65±0.10	2.50±0.10	8.00±0.10	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.10	1.50+0.10/-0.00
4532	3.45±0.10	4.90±0.10	3.05±0.10	12.00±0.20	1.75±0.10	3.50±0.05	4.00±0.05	8.00±0.10	1.50+0.10/-0.00

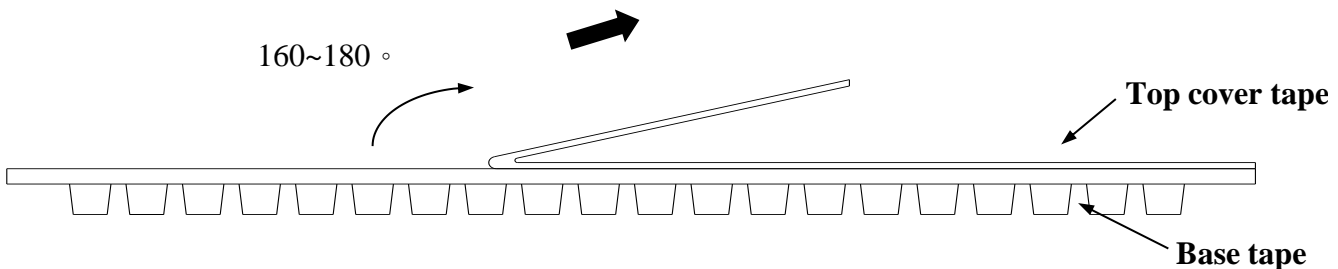
## ◆ Cover Tape Peel Strength

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

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



## ◆ Packaging Quantity

Chip Size	2012	3216	3225	4532
8mm / Reel	2000	2000	1000	500