

Common Mode Choke  
Automotive Ethernet

**CMC AE-Series**

## CMC4532AE type

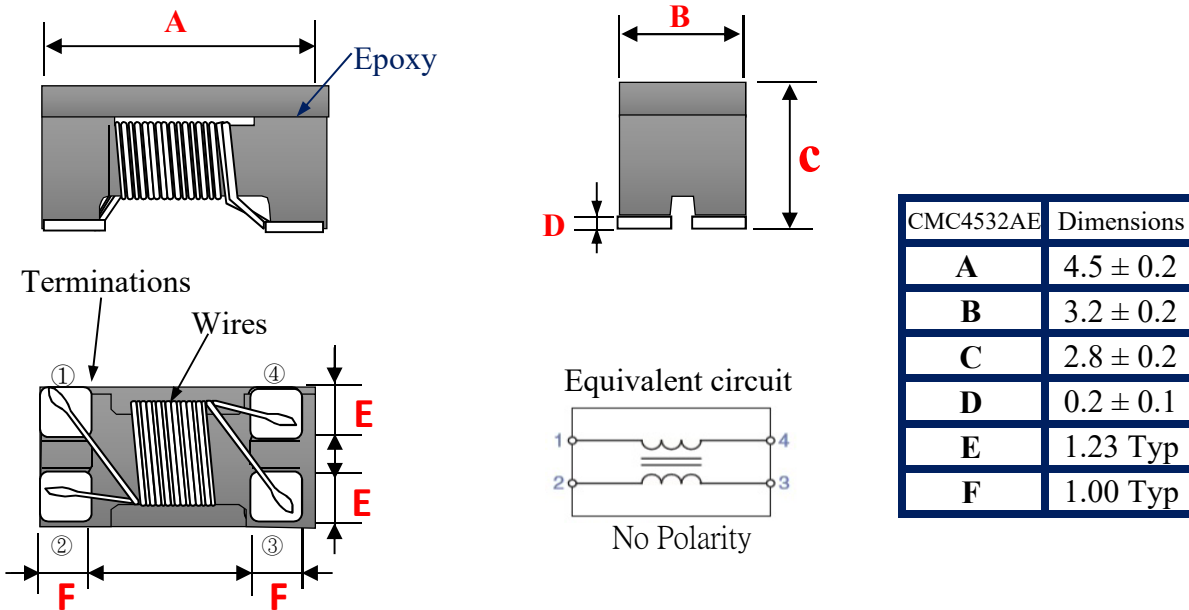
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CMC4532AE [1812 inch]

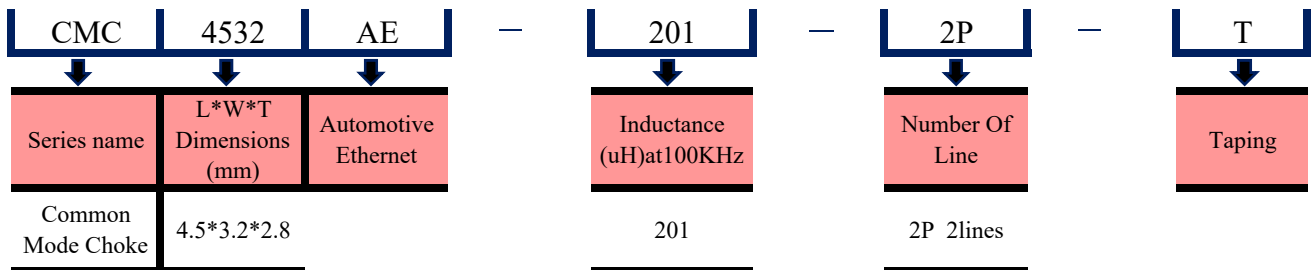


# CMC4532AE-Series (For Automotive Ethernet)

## ◆ SHAPE & DIMENSIONS



## ◆ PART NUMBER CONSTRUCTION



## ◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature °C	Storage Temperature °C		
CMC4532AE-Series	-40 to +125	-40 to +105	ø180	500

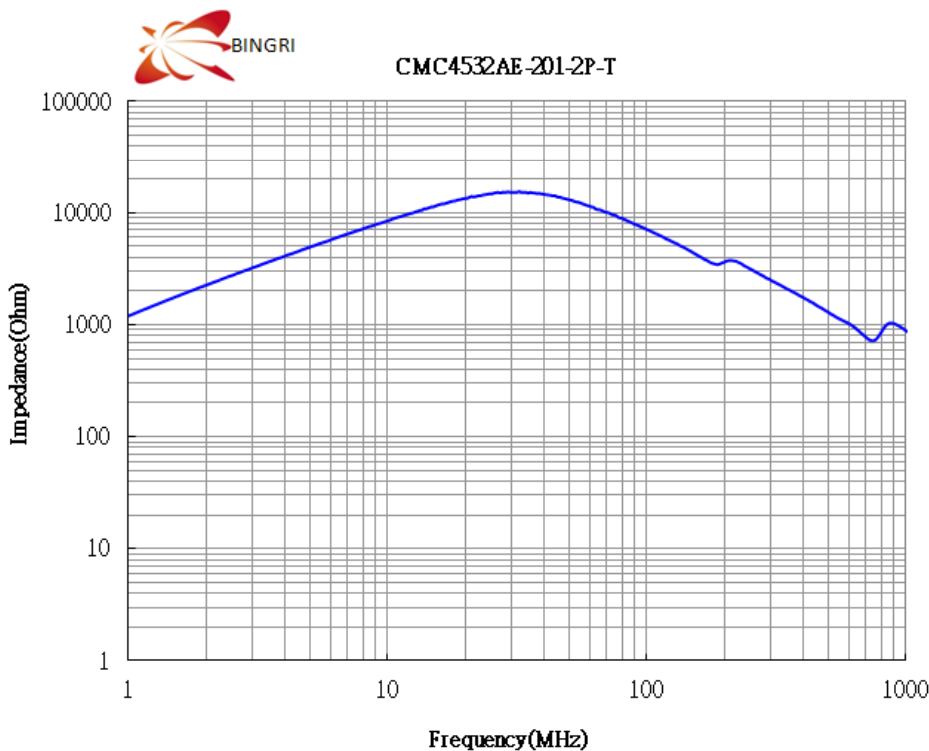
## ◆ ELECTRICAL CHARACTERISTICS

Impedance 【10MHz 0.1V】 (Ω)min. (Ω)typ.	Inductance 【100KHz 0.1V】 (uH)+60%/-20%	DC Resistance (Ω) max.	Rated Current (mA)max	Insulation Resistance (MΩ)min.	Rated Voltage (V) max.	Part No.
10000 10500	200	4.5	100	10	50	CMC4532AE-201-2P-T

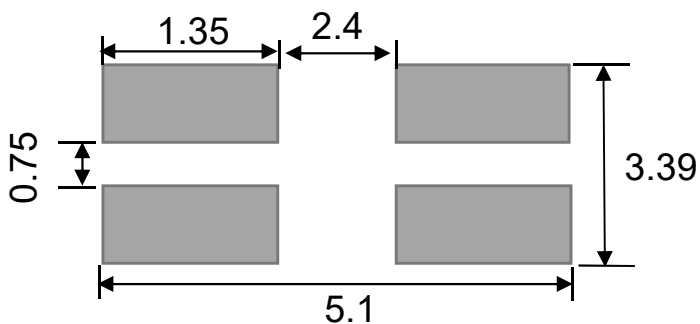
## ◆ Measurement

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)

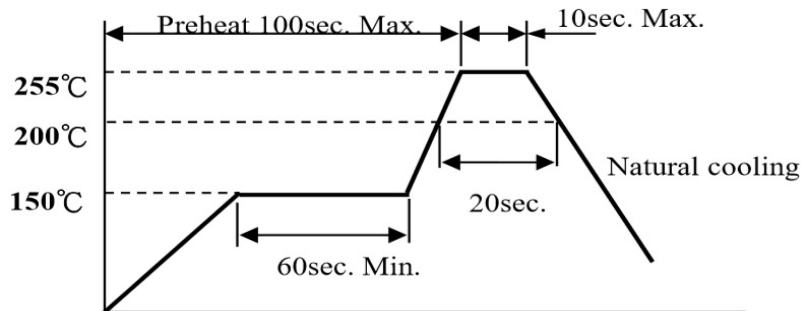


# RELIABILITY

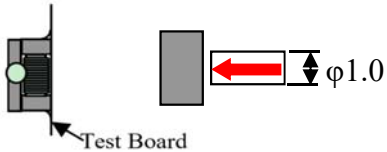


## ◆ RECOMMENDED REFLOW PROFILE

2019/10/17



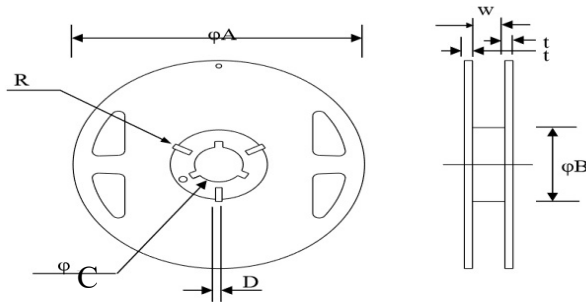
## ◆ MECHANICAL RELIABILITY

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 
	2012	0.5	
	2520	1.0	
	3216	1.0	
	3225	1.0	
	4532	1.2	

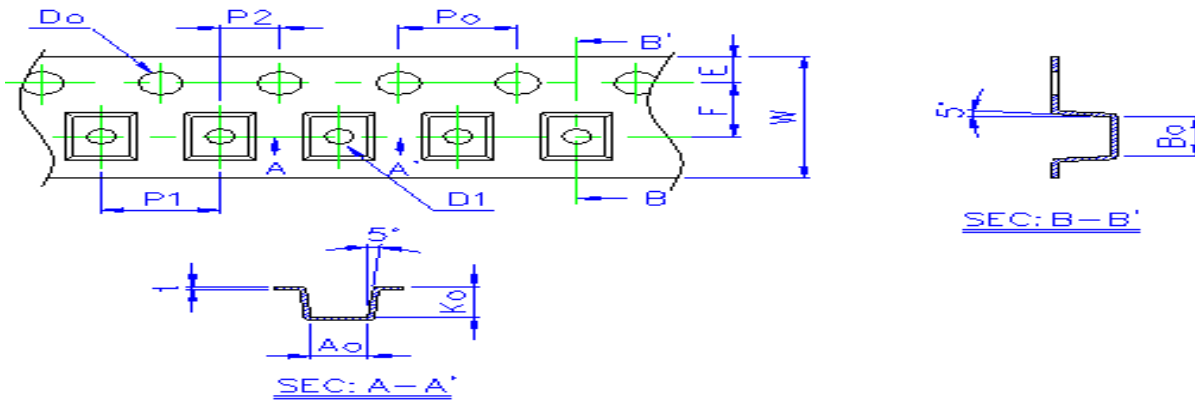
## ENDURANCE RELIABILITY

Thermal Shock	Impedance change within ± 15% Without mechanical damage	-65°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	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)
4532	77	3.45±0.1	500	4.90±0.1	3.05±0.1	12.00±0.2	1.75±0.1	5.50±0.05	4.00±0.05	8.00±0.1	2.00±0.05	1.50+0.1/-0	1.50±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°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa

