




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0508- CMC21F900MT04A
DATE	May 08, 2023
REVISION	A1
DESCRIPTION	SMD Wire Wound Chip Common Mode Choke 2012 Type, L2.0*W1.2*H1.2mm Common-Mode Impedance: 90 ohm @100MHz, Tolerance: +/-20%, Operating Temp. Range -40°C ~+85°C, Reflow Profile Condition 260 °C Max. RoHS/RoHS III compliant, Tape/Reel
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	Aillen CMC2012F- 900MT04A
PART CODE	CMC21F900MT04A

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: May 08, 2023			

CUSTOMER APPROVE	
DATE:	

5/8/2023

WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

MAIN FEATURE

- Winding Type Realizes Small Size And Low Profile
- Prevention Of Common Mode Noise At High Frequency
- Wide Frequency Range Operating Temperature -40~+85°C (Including Self - Temperature Rise)
- Reflow Profile Condition 260 °C Max.
- Cross More Competitors Part
- RoHS III Compliant



APPLICATION

- USB2.0 of PC, Peripheral Equipment, Small Digital AV Equipment, Etc.
- LVDS lines of Note PC, LCD
- Audio lines

PART CODE GUIDE

RFQ

[Request For Quotation](#)

CMC	21	F	900	M	T	04	A
1	2	3	4	5	6	7	8

- 1) CMC: Product Series Code Wire Wound Chip Common Mode Choke
- 2) 21: Dimensions Code, 21: 2012 Type, L2.0*W1.2*H1.2mm
- 3) F: Material Code: Ferrite
- 4) 900: Common Mode Impedance Code, 900: 90 ohm
- 5) M: Tolerance code M: +/-20%; Y: +/-25%; T: 30%
- 6) T: Package code, Tape and Reel
- 7) 04: Rated Current code (IDC), 04: 400mA
- 8) A: Internal control code, A~Z or 1~9

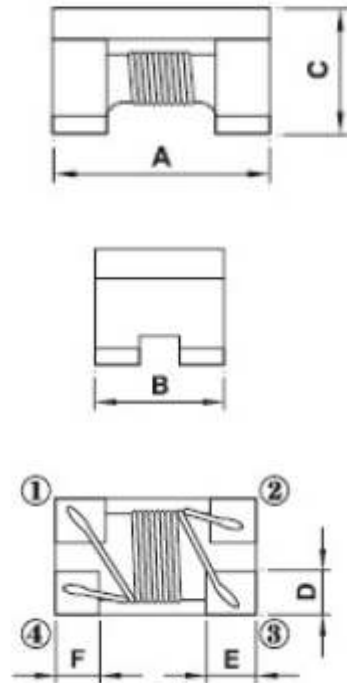
WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

DIMENSION (Unit: mm)

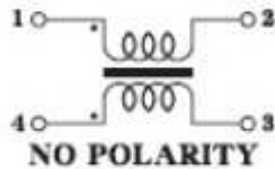


Image for reference

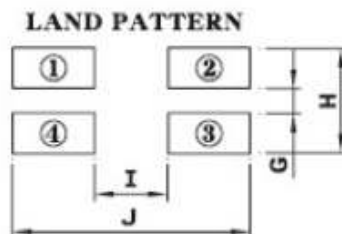
CMC21



Code	Dimension (mm)
A	2.0±0.2
B	1.2±0.2
C	1.2±0.2
D	0.5±0.1
E	0.5±0.1
F	0.5±0.1
G	0.4
H	1.2
I	0.8
J	2.6

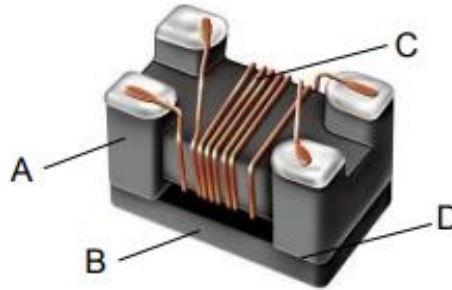


Recommend Pad Layout



WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

STRUCTURE AND MATERIAL



Code	Components	Material
A	Core	Ferrite
B	I Core	Ferrite
C	Wire	Polyurethane Enameled Copper Wire
D	Epoxy	Epoxy Resin

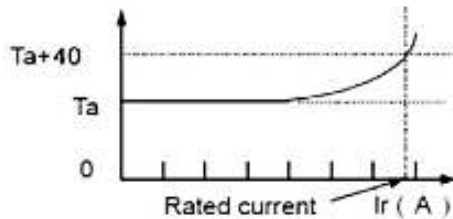
WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

ELECTRICAL CHARACTERISTICS

1. Operating temperature range : -40°C ~ 85°C (Including self - temperature rise)
2. Storage temperature range (packaging conditions): -40°C~+85°C and RH 70% (Max.)

TEST AND MEASUREMENT PROCEDURES

1. Common Mode Impedance(Ω): Test equipment: Keysight E4991B / Agilent 4787A or equivalent
2. DC Resistance (DCR): Test equipment: Agilent34420A / Agilent 4338B or equivalent
3. Rated Current (I_{rms}): I_{rms} is direct electric current as chip surface temperature rose just 40 against chip initial surface temperature (T_a)



4. Insulation Resistance: Test equipment: Chroma or equivalent TH2683A / ZX6583

RECOMMENDED SOLDERING TECHNOLOGIES

Re-flowing Profile

Preheat condition: 150~200 /60~120sec.

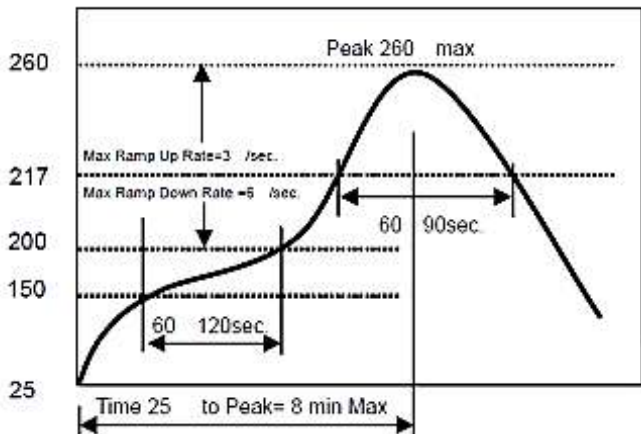
Allowed time above 217C: 60~90sec.

Max temp: 260

Max time at max temp: 10sec

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2 times max



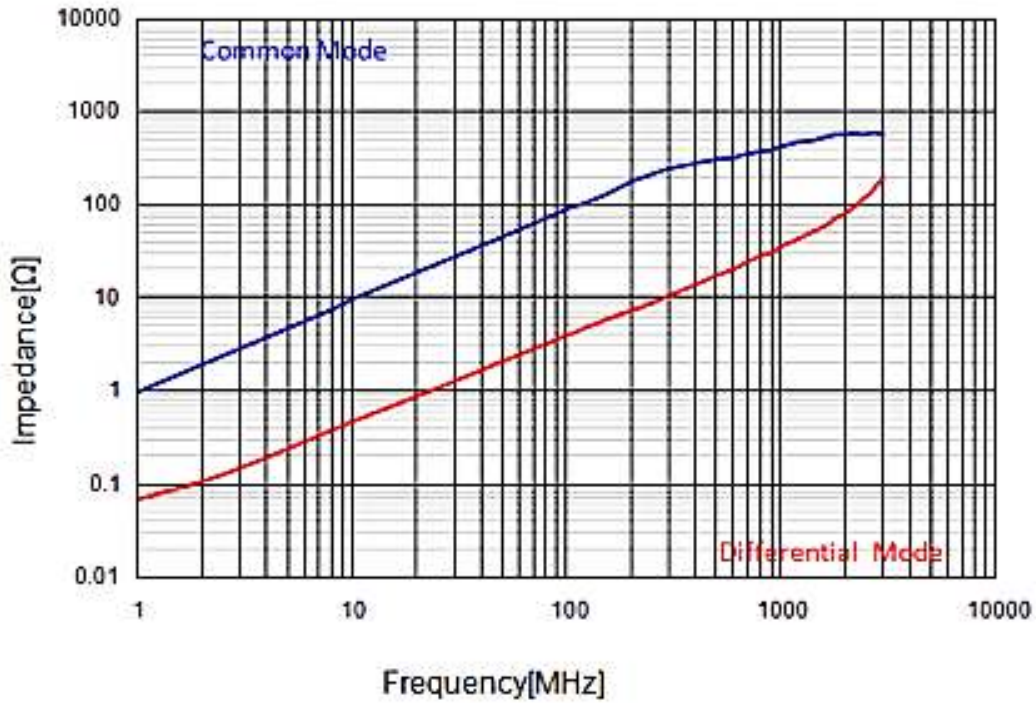
WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

SPECIFICATION TABLE

Parameter	Units	Value			Condition
		Min.	Typical	Max.	
Holder Type	2012 Type, L2.0*W1.2*H1.2mm				
Common-Mode Impedance (Z)	Ω	90			@100MHz
Tolerance	%	±20%			
Test Frequency	MHz	100			
DC Resistance (RDC)	Ω	-	-	0.35	
Rated Current (I_{rms})	mA	-	-	400	
Operation Temperature	°C	-40	-	+85	
Storage Temperature	°C	-40	-	+85	
Rated Voltage (V_{dc})	V	50			
Withstand Voltage (V_{dc})	V	125			
Insulation Resistance	MΩ	10			

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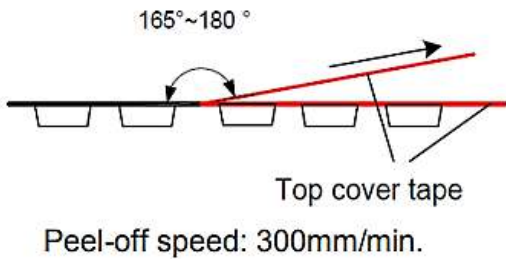
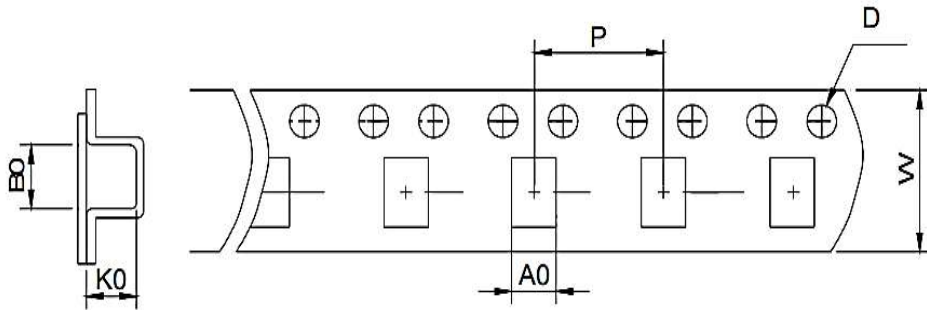
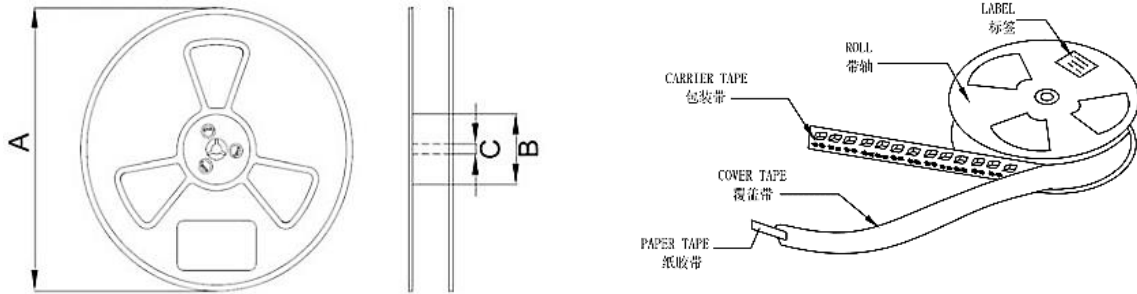
TYPICAL ELECTRICAL CHARACTERISTICS



WIRE WOUND CHIP COMMON MODE CHOKE CMC21 TYPE

TAPE/REEL (Unit: mm)

All Devices are packed in accordance with EIA standard RS-481-2 and specifications, 2000pcs/Reel



Symbol	Dimension (mm)
W	8.0
A0	1.5
B0	2.3
K0	1.55
D	1.5
P	4.0
A	178
B	58
C	13

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