



SPECIFICATION FOR APPROVAL

CUSTOMER : STD

CUSTOMER PART NO :

PRODUCTS : Wire Wound Common Mode Chokes

PART NO: MCCW Series

DATE: 2019.08.28

SALES: 产品部

E-MAIL: Eily@szmorechance.com

APPROVAL SIGNATURE 客户承认签章	

APPROVAL	CHECK BY	DRAWN BY
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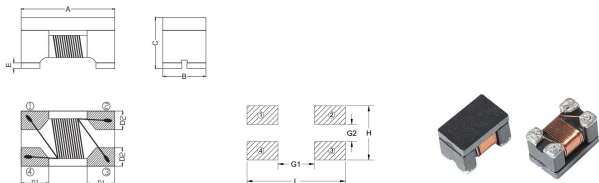
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Wire Wound Common Mode Chokes--MCCW Series



Featur

1. High common mode impedance at high frequency effects excellent noise suppression performance.
2. MCCW-series realizes small size and low profile.
3. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

Application

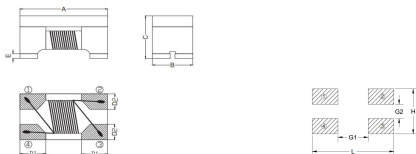
Common mode noise suppression of signal lines in super high speed and high density digital equipment such as N/B , STB , Blu-Ray Player and peripherals, Etc.

Product Identification

MC CW 2012Z 090 C040
A B C D E

- A:** Company code **D:** Impedance 090=90 (Ω)
B: Series name **F:** Rated Current C040=400mA
C: Dimension.

Wire Wound Common Mode Chokes--MCCW Series

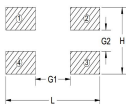
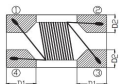
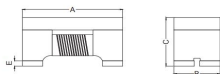


P/N	A (mm)	B (mm)	C (mm)	D1 (mm)	D2 (mm)	E (mm)	L (mm)	G1 (mm)	H (mm)	G2 (mm)
MCCW 2012	2.0±0.2	1.2±0.2	1.2±0.2	0.50±0.1	0.51±0.1	0.15 ± 0.10	2.60	1.10	1.25	0.45
MCCW 3216	3.2±0.2	1.6±0.2	2.0±0.2	0.50±0.1	0.50±0.1	0.15 ± 0.10	3.70	1.90	1.60	0.40
MCCW 3225	3.2±0.2	2.5±0.2	2.2±0.2	0.80±0.1	0.90±0.1	0.15 ± 0.10	4.40	1.60	3.50	0.60
MCCW 4532	4.5±0.2	3.2±0.2	2.8±0.2	1.00±0.1	1.20±0.1	0.15 ± 0.10	4.80	2.50	3.80	0.70

P/N	Impedance Range (Ω) 100MHz				Rated Current (mA)	DCR (Ω)
	100	500	1000	2000		
MCCW 2012	67.0				1000	100-400
MCCW 3216	90.0				2200	200-400
MCCW 3225	90.0				1000	400-1000
MCCW 4532	80.0				800	1000-3000

Wire Wound Common Mode Chokes--MCCW2012 Series

1.Mechanical & Dimensions(UNIT: mm)



A	2.0±0.2
B	1.2±0.2
C	1.2±0.2
D1	0.50±0.1
D2	0.51±0.1
E	0.15±0.1
G1	1.10
G2	0.45
H	1.25
L	2.60

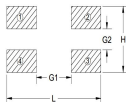
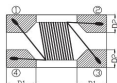
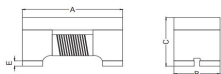
2.Electrical characteristics

Part Number	Common mode Impedance (Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA) max.	Rated Volt. (Vdc)max.	Withstand Volt. (Vdc)max.	IR (Ω) min.
MCCW2012Z067C040	67±25%	100	0.25	400	50	125	10M
MCCW2012Z090C040	90±25%	100	0.30	400	50	125	10M
MCCW2012Z120C040	120±25%	100	0.30	400	50	125	10M
MCCW2012Z160C030	160±25%	100	0.35	350	50	125	10M
MCCW2012Z180C030	180±25%	100	0.35	350	50	125	10M
MCCW2012Z200C030	200±25%	100	0.40	300	50	125	10M
MCCW2012Z220C030	220±25%	100	0.40	300	50	125	10M
MCCW2012Z260C030	260±25%	100	0.40	300	50	125	10M
MCCW2012Z360C030	360±25%	100	0.50	300	50	125	10M
MCCW2012Z600C030	600±25%	100	0.88	300	50	125	10M
MCCW2012Z1000C010	1000±25%	100	1.30	100	50	125	10M

3.Operating: -40℃ ~ +125℃ (Including self-temperature rise)

Wire Wound Common Mode Chokes--MCCW3216 Series

1.Mechanical & Dimensions(UNIT: mm)



A	3.2±0.2
B	1.6±0.2
C	2.0±0.2
D1	0.51±0.1
D2	0.50±0.1
E	0.15±0.1
G1	1.90
G2	0.40
H	1.60
L	3.70

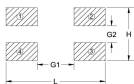
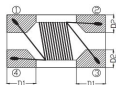
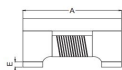
2.Electrical characteristics

Part Number	Common mode Impedance (Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA) max.	Rated Volt. (Vdc)max.	Withstand Volt. (Vdc)max.	IR (Ω) min.
MCCW3216Z090C040	90±25%	100	0.30	400	50	125	10M
MCCW3216Z120C035	120±25%	100	0.30	350	50	125	10M
MCCW3216Z160C035	160±25%	100	0.40	350	50	125	10M
MCCW3216Z220C030	220±25%	100	0.45	300	50	125	10M
MCCW3216Z260C030	260±25%	100	0.50	300	50	125	10M
MCCW3216Z360C030	360±25%	100	0.60	300	50	125	10M
MCCW3216Z600C030	600±25%	100	0.80	300	50	125	10M
MCCW3216Z1000C020	1000±25%	100	1.00	200	50	125	10M
MCCW3216Z2200C020	2200±25%	100	1.20	200	50	125	10M

3.Operating: -40℃ ~ +125℃ (Including self-temperature rise)

Wire Wound Common Mode Chokes--MCCW3225 Series

1.Mechanical & Dimensions(UNIT:mm)



A	3.2±0.2
B	2.5±0.2
C	2.2±0.2
D1	0.80±0.1
D2	0.90±0.1
E	0.15±0.1
G1	1.60
G2	0.60
H	3.50
L	4.40

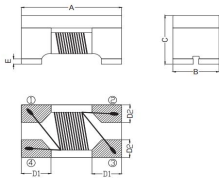
2.Electrical characteristics

Part Number	Common mode Impedance (Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA) max.	Rated Volt. (Vdc)max.	Withatand Volt. (Vdc)max.	IR (Ω) min.
MCCW3225Z090C1A	90±25%	100	0.05	1000	50	125	10M
MCCW3225Z600C1A	600±25%	100	0.20	1000	50	125	10M
MCCW3225Z1000C040	1000±25%	100	0.30	400	50	125	10M

3.Operating: -40℃ ~ +125℃ (Including self-temperature rise)

Wire Wound Common Mode Chokes--MCCW4532 Series

1.Mechanical & Dimensions(UNIT: mm)



A	4.5±0.2
B	3.2±0.2
C	2.8±0.2
D1	1.00±0.1
D2	1.20±0.1
E	0.15±0.1
G1	2.50
G2	0.70
H	3.80
L	4.80

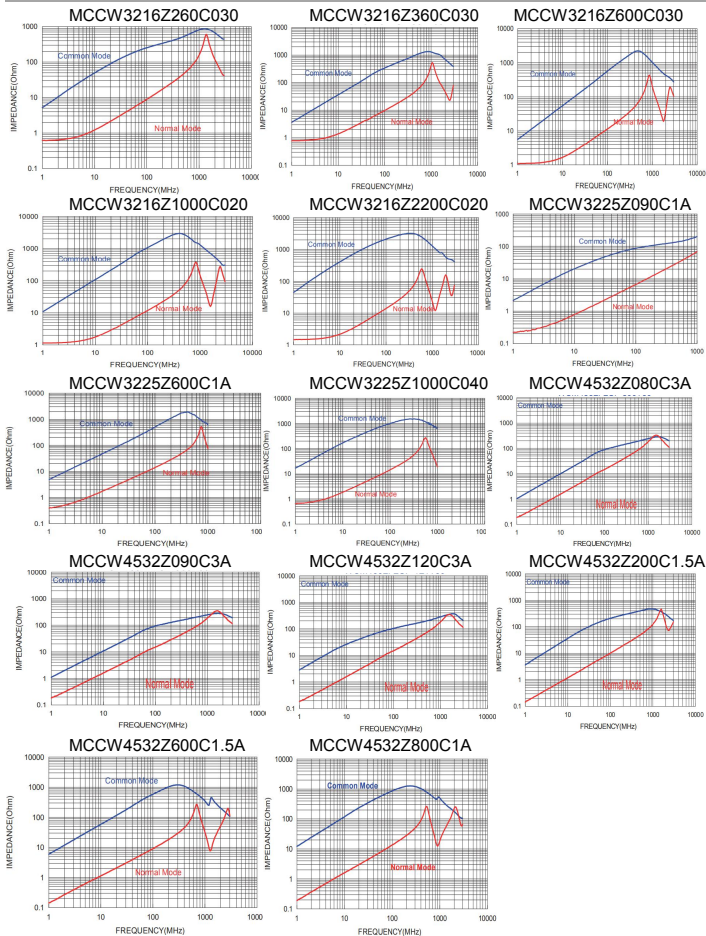
2.Electrical characteristics

Part Number	Common mode Impedance (Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA) max.	Rated Volt. (Vdc)max.	Withstand Volt. (Vdc)max.	IR (Ω) min.
MCCW4532Z080C3A	80±25%	100	0.05	3000	50	125	10M
MCCW4532Z090C3A	90±25%	100	0.05	3000	50	125	10M
MCCW4532Z120C3A	120±25%	100	0.05	3000	50	125	10M
MCCW4532Z200C1.5A	200±25%	100	0.10	1500	50	125	10M
MCCW4532Z600C1.5A	600±25%	100	0.24	1500	50	125	10M
MCCW4532Z800C1A	800±25%	100	0.24	1000	50	125	10M

3.Operating: -40℃ ~ +125℃ (Including self-temperature rise)

Wire Wound Common Mode Chokes--MCCW Series

4.Impedance Frequency Characteristics(Typical)



SPECIFICATION FOR APPROVAL

4. Reliability and Testing Conditions / Pin Type Power Inductors

Item	Specification	Conditions															
Operating temperature range	-40°C ~ +125°C (Including self-temperature rise)																
Storage temperature and humidity range	-40°C ~ +125°C , 70% RH Max																
Solderability	More than 90% of the terminal electrode should be covered with solder.	<p>Unit: Second</p>															
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	<p>Unit: Second</p>															
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 96 hours in 125±5°C and 2 hour drying under normal condition.															
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 96 hours in -40±5°C and 2 hour drying under normal condition.															
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 100 cycles of following condition. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Times (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±5°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>125±5°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>Within 3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Times (min.)	1	-40±5°C	30	2	Room Temperature	Within 3	3	125±5°C	30	4	Room Temperature	Within 3
Step	Temperature (°C)	Times (min.)															
1	-40±5°C	30															
2	Room Temperature	Within 3															
3	125±5°C	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 96 hours in 40±2°C and 90 to 95% humidity , and 2 hour drying under normal condition.															
Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10–55–10Hz) with 1.52mm P-P Amplitudes.															
Terminal strength	The terminal electrode and the ferrite must not be damaged	Solder a chip to test substrate, and then laterally apply a load 10N in the arrow direction, Duration :5s															

Wire Wound Common Mode Chokes--MCCW Series

5. Recommended Soldering Conditions

Figure 1. Re-flow Soldering

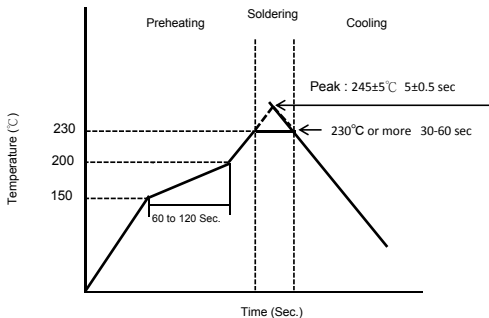
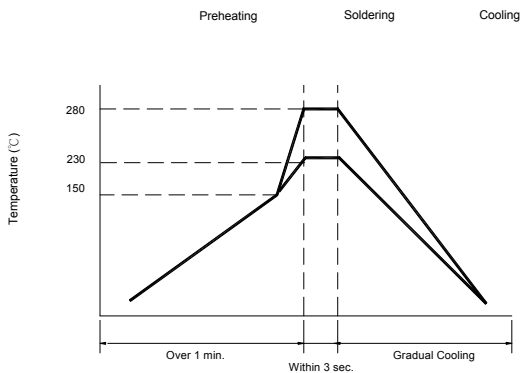
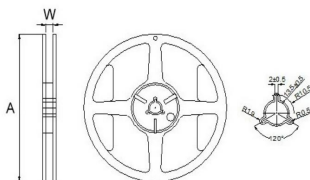


Figure 2. Hand Soldering

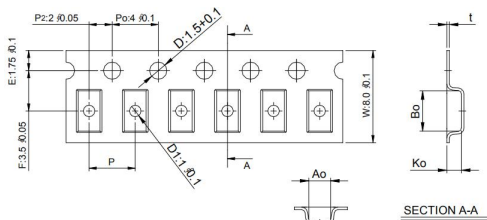


Wire Wound Common Mode Chokes--MCCW Series

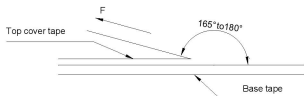
6.Packaging



Type	A(mm)	B(mm)	C(mm)	D(mm)
7" x 8mm	9.0 ± 0.5	60±2.0	13.5 ± 0.5	178 ± 2



P/N	Bo (mm)	Ao(mm)	Ko (mm)	P (mm)	t (mm)	D1 (mm)	Quantity
MCCW 2012	2.35±0.1	1.50±0.1	1.45±0.1	4.0±0.1	0.22±0.05	none	2000pcs/Reel
MCCW 3216	3.50±0.1	1.88±0.1	2.10±0.1	4.0±0.1	0.22±0.05	none	2000pcs/Reel
MCCW 3225	3.65±0.10	2.88±0.10	2.50±0.10	4.0±0.1	0.26±0.05	none	2000pcs/Reel
MCCW 4532	4.90±0.10	3.60±0.10	3.00±0.10	8.0±0.1	0.26±0.05	none	500pcs/Reel



The force tearing off cove tape is 15 to 60 grams in the arrow direction under the following conditions

Room Temp (°C)	Room Humidity (%)	Room atm (hPa)	Teaming Speed (mm/min)
5~35	45~85	860~1060	300

※Storage Conditions

1. Temperature and humidity conditions: -40°C ~ +125°C and 70% RH.
2. Recommended products should be used within 6 months from the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

※Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.