MORE 茂昌电子

SPECIFICATION FOR APPROVAL

CUSTOMER ： STD

CUSTOMER PART NO ：

PRODUCTS ： Wire Wound Common Mode Chokes

PART NO： MCSF Series

DATE： 2019.09.05

SALES： 产品部

E-MAIL： Eily@szmorechance.com

APPROVAL SIGNATURE 客户承认签章	

APPROVAL	CHECK BY	DRAWN BY
Baron	Eily	May

苏州茂昌电子有限公司

Suzhou MoreChance Electronics Co.,Ltd

公司地址:苏州市吴中区宝带东路399号中润中心1419-1420(12B)

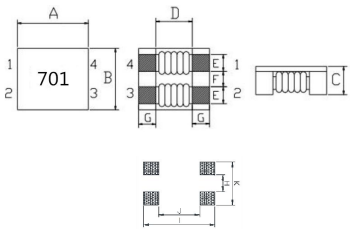
Add:Room1419-1420(12B) zhongRun center Building ,NO 399 Baodai East Rd , Wuzhoug District,Suzhou

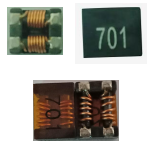
TEL/:0512-68562977 FAX:0512-68563299

公司地址:深圳市宝安区沙井街道办中心路108号锐钧商务大厦19楼19J

TEL/:0755-27389457 FAX:0755-23217683

Wire Wound Common Mode Chokes --MCSF Series





Featur

1. Have achieved miniaturization while keeping characteristics by adopti of exclusive square type closed magnetic cores .

2. Due to the low profile design,it is suitable for surface mount.

3. High impedance characteristic has been a chieved a suprior effect for common mode noise suppression.

4. This products have seria lized a large current product up to 10A corresponding for various DC power lines.

Application

Common mode noise countermea sures for DC power lines of electronic control equipment, multi-media equipment for automotives and various electronic equipment power supply lines.

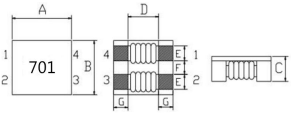
Product Identification

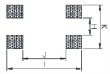
MC SF 0706Z 301
A B C D

A: Company code **C:** Dimension.
B: Series name **D:** Impedance 301=300 (Ω)

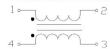
Wire Wound Common Mode Chokes --MCSF Series

1.Mechanical & Dimensions (UNIT: mm)





LAND PATTERNS



Part Number	A	B	C	D	E	F	G	H	I	J	K
MCSF0706Z	7.0±0.5	6.0±0.5	3.8MAX	3.5 Typ	1.5Typ	1.5Typ	1.7Typ	1.5Typ	8.0Typ	3.0Typ	5.0Typ
MCSF0907Z	9.0±0.5	7.0±0.5	4.8Max	5.6 Typ	1.5Typ	2.0Typ	1.7Typ	1.5Typ	10.0Typ	5.0Typ	5.5Typ
MCSF1211Z	12.0±0.5	10.8±0.5	6.4Max	7.0 Typ	2.7Typ	2.5Typ	2.5Typ	2.0Typ	12.5Typ	6.5Typ	8.5Typ
MCSF1513Z	15.0±0.5	13.0±0.5	6.0Max	9.0Typ	2.7Typ	3.0 Typ	3.0Typ	3.3Typ	16.0Typ	8.0Typ	9.5Typ

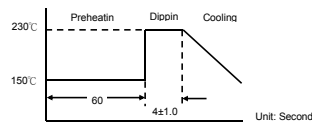
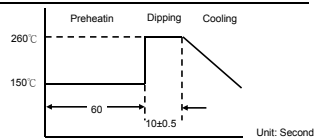
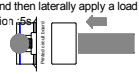
2.Electrical characteristics

Part Number	Impedane(Ω) (at 100MHz)		Rated Current (A) Max.	DCR (MΩ) MAX	Insulation Resistance (MΩ) Min	Rated Voltage (V) Max.
	MIN	TYP				
MCSF0706Z400	40	70	15.0	5.0	10.0	125
MCSF0706Z101	100	140	9.0	10.0	10.0	125
MCSF0706Z301	225	300	5.0	10.0	10.0	125
MCSF0706Z501	275	450	5.0	10.0	10.0	125
MCSF0706Z601	500	700	4.0	15.0	10.0	125
MCSF0706Z701	500	700	4.0	15.0	10.0	125
MCSF0706Z102	800	1020	3.0	15.0	10.0	125
MCSF0706Z132	910	1300	2.5	17.0	10.0	125
MCSF0907Z301	225	300	6.0	6.0	10.0	80
MCSF0907Z501	450	600	5.5	8.0	10.0	80
MCSF0907Z701	500	700	5.0	10.0	10.0	80
MCSF0907Z102	750	1000	4.0	13.0	10.0	80
MCSF0907Z222	1700	2200	3.0	50.0	10.0	80
MCSF0907Z272	2000	2700	2.0	80.0	10.0	80
MCSF1211Z800	80	230	10.0	2.0	10.0	125
MCSF1211Z701	500	700	8.0	6.0	10.0	125
MCSF1211Z801	600	800	8.0	8.0	10.0	125
MCSF1211Z102	750	1000	6.0	14.0	10.0	125
MCSF1211Z222	2200	2500	1.8	35.0	10.0	125
MCSF1211Z272	2300	2700	1.5	50.0	10.0	125
MCSF1513Z301	250	300	13.0	5.0	10.0	80
MCSF1513Z551	450	550	10.0	6.0	10.0	80
MCSF1513Z701	500	700	10.0	7.0	10.0	80

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

SPECIFICATION FOR APPROVAL

4.Reliability and Testing Conditions / Pin Type Power Inductors

Item	Specification	Conditions
Operating temperature range	-40℃ ~ +125℃ (Including self-temperature rise)	
Storage temperature and humidity range	-40℃ ~ +125℃ , 70% RH Max	
Solderability	More than 90% of the terminal electrode should be covered with solder.	
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 96 hours in 125±5℃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℃ 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. Step / Temperature (℃) / Times (min.) 1 / -40±5℃ / 30 2 / Room Temperature / Within 3 3 / 125±5℃ / 30 4 / Room Temperature / Within 3
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After96 hours in 40±2℃ 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. 

5.Recommended Soldering Conditions

Figure 1. Re-flow Soldering

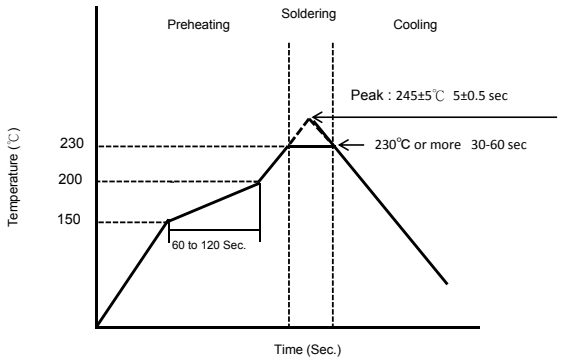
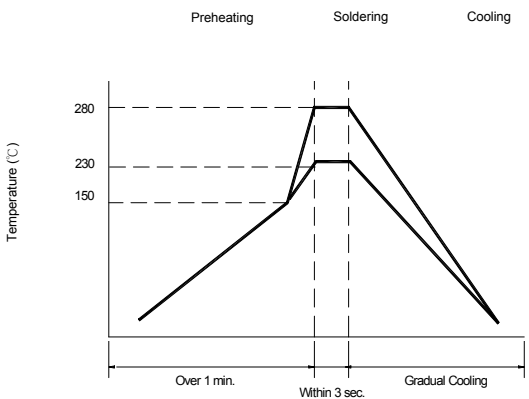
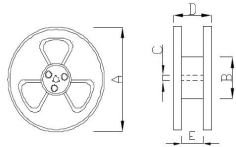


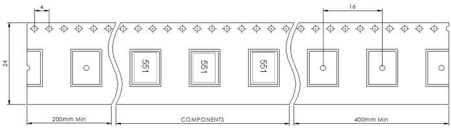
Figure 2. Hand Soldering



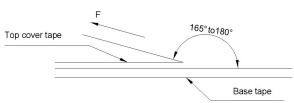
6.Packaging



Part Number	A	B	C	D	E	PCS/REEL
MCSF0706Z	330	100	13.5	21.5	16.5	1500
MCSF0907Z	330	100	13.5	30.4	24.4	700
MCSF1211Z	330	100	13.5	30.4	24.4	500
MCSF1513Z	330	100	13.5	34.8	32.5	350



P/N	Tape width	Distance	Pull-of force
MCSF0706Z	16 mm	12mm	10~120g
MCSF0907Z	24 mm	16 mm	10~120g
MCSF1211Z	24 mm	16 mm	10~120g
MCSF1513	24 mm	16 mm	10~120g



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

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

※Storage Conditions

1. Temperature and humidity conditions: -40℃ ~ +125℃ and 70% RH.
2. Recommended products should be used within 6 months form 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.