T4FC1210DF SERIES

Common Mode Choke SMD (1.2 X 1.0 X 0.9mm)

FEATURES

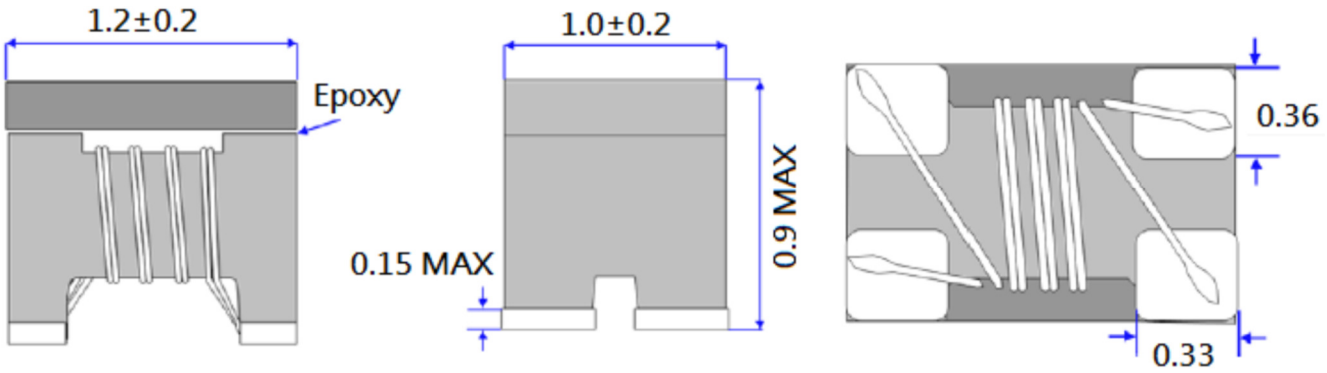
- High common mode impedance at high frequency
- excellent noise suppression performance
- Ideal for use as common-mode chokes for USB1.1/USB2.0/IEEE 1394 interface
- Halogen Free RoHS compliant

SPECIFICATION

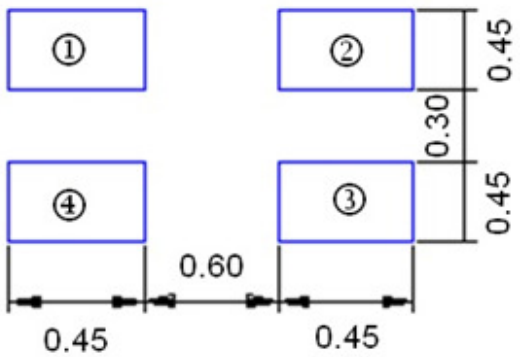
Part No.	Common Mode Impedance typ. (Ω)	Tolerance Max (%)	Rated Current (mA)	Rated Voltage (VDC)	Insulation Resistance min. (MΩ)	DC Resistance max. (Ω)
T4FC1210DF-150	15 @ 100MHz	25	300	20	10	0.30
T4FC1210DF-250	25 @ 100MHz	25	300	20	10	0.30
T4FC1210DF-400	40 @ 100MHz	25	300	20	10	0.35
T4FC1210DF-500	50 @ 100MHz	25	300	20	10	0.40
T4FC1210DF-900	90 @ 100MHz	25	280	20	10	0.50

- Electrical measurements at ambient temperature of 20°C
- Test equipment: HP4291A

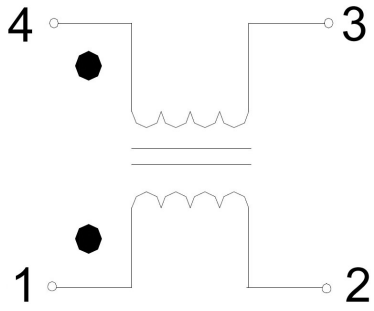
DIMENSION



SOLDER PATTERN

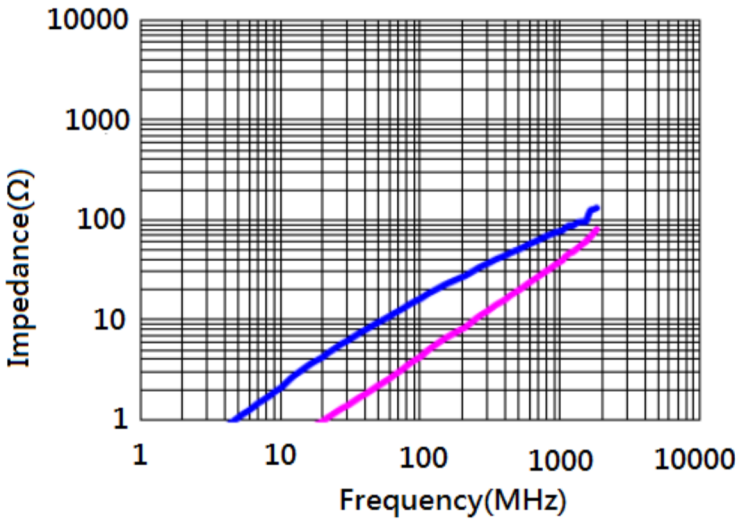


SCHEMATIC

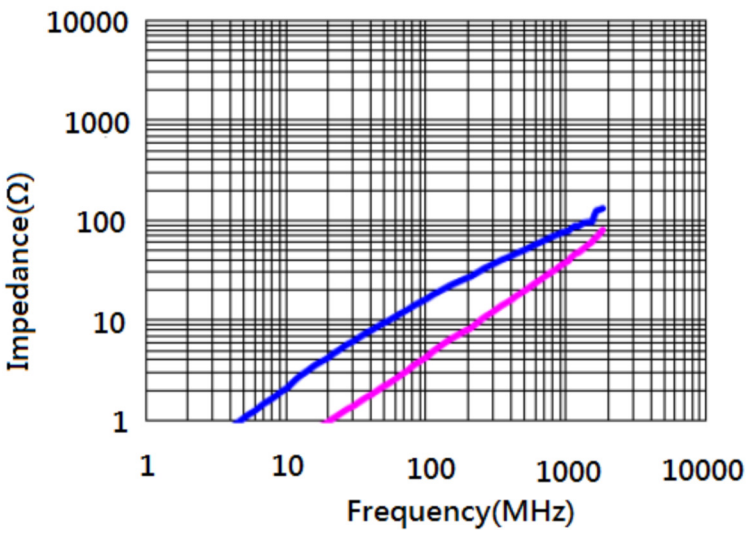


CHARACTERISTICS

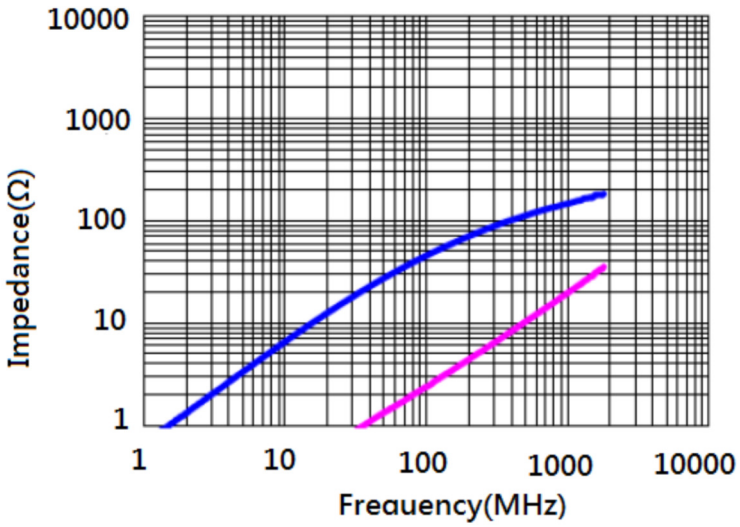
T4FC1210CF-150



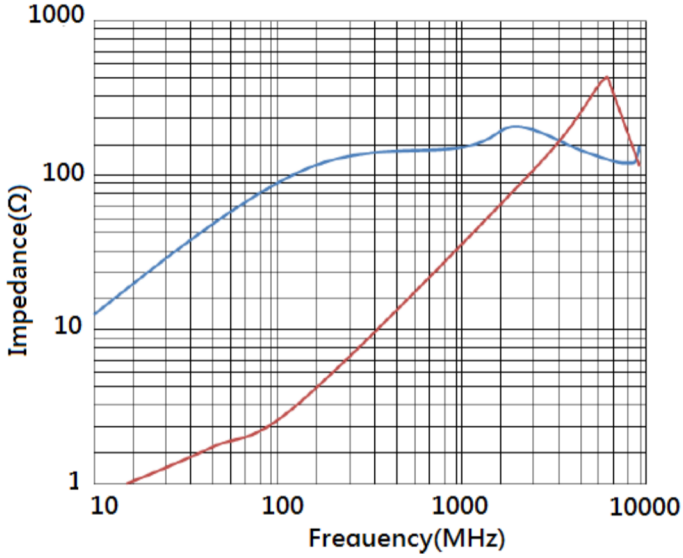
T4FC1210CF-250



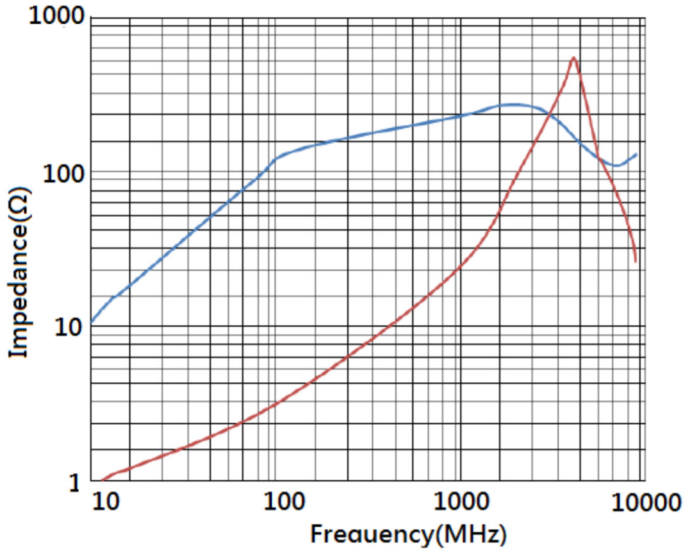
T4FC1210CF-400



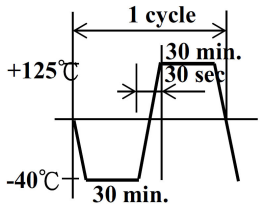
T4FC1210CF-500



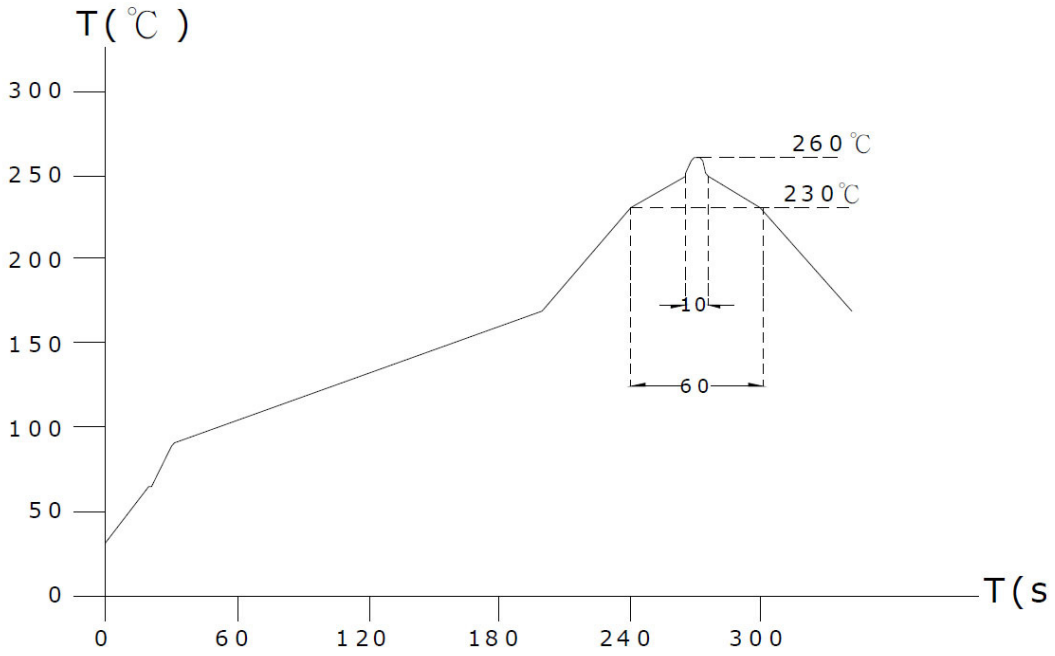
T4FC1210CF-900



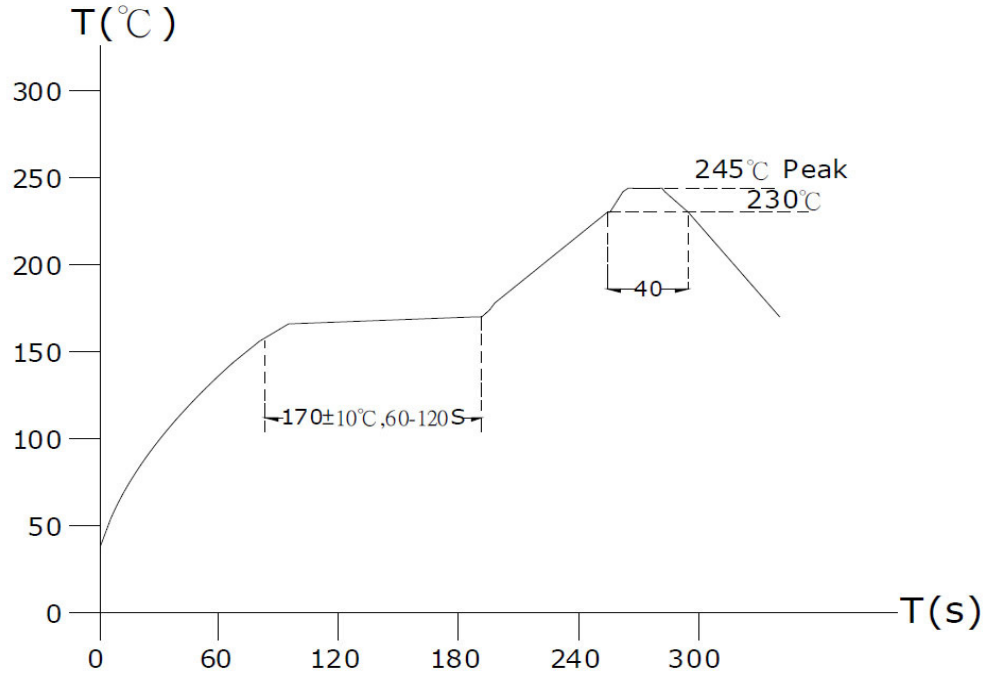
RELIABILITY TEST

Operating temperature : -40 to +85°C	Storage temp and humidity : -40~85°C ,60% RH max	
ITEM	SPECIFICATIONS	TEST CONDITIONS
Solderability	The metalized area must have 90% minimum solder coverage.	Dip pads in flux and dip in solder pot (99 Sn or 96.5 Sn/3.5 Ag solder) at 232°C ±5°C.
Resistance to soldering heat	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag or 99 Sn solder paste. Solder process shall be at a maximum temperature of 260°C. For 99 Sn solder paste: >183°C for 120 sec. For 96.5 Sn/3.5 Ag solder paste: >217°C for 90 sec
Vibration	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 house for a total of 6 hours. Frequency : 10~50 Hz ; Amplitude : 1.5mm
High temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature 125±2°C for 500±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Static Humidity	Inductors must not have a shorted or open winding.	Inductors shall be subjected to temperature 85±2°C and 90 to 95%RH. for ten 24-hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Component adhesion (push test)	Inductors shall be subjected to 1.8Kg	Inductors shall be reflow soldered (232°C ±5°C for 10 seconds) to a tinned copper substrate. A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.
Low temperature storage	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature -40±2°C for 48±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 1 to 2hours.
Resistance to solvent	There must be no case deformation or change in dimensions, or obliteration of marking	Inductors must withstand 6 minutes of alcohol or water.
Thermal shock	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to 10 cycles to the following temperature cycle:  Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.

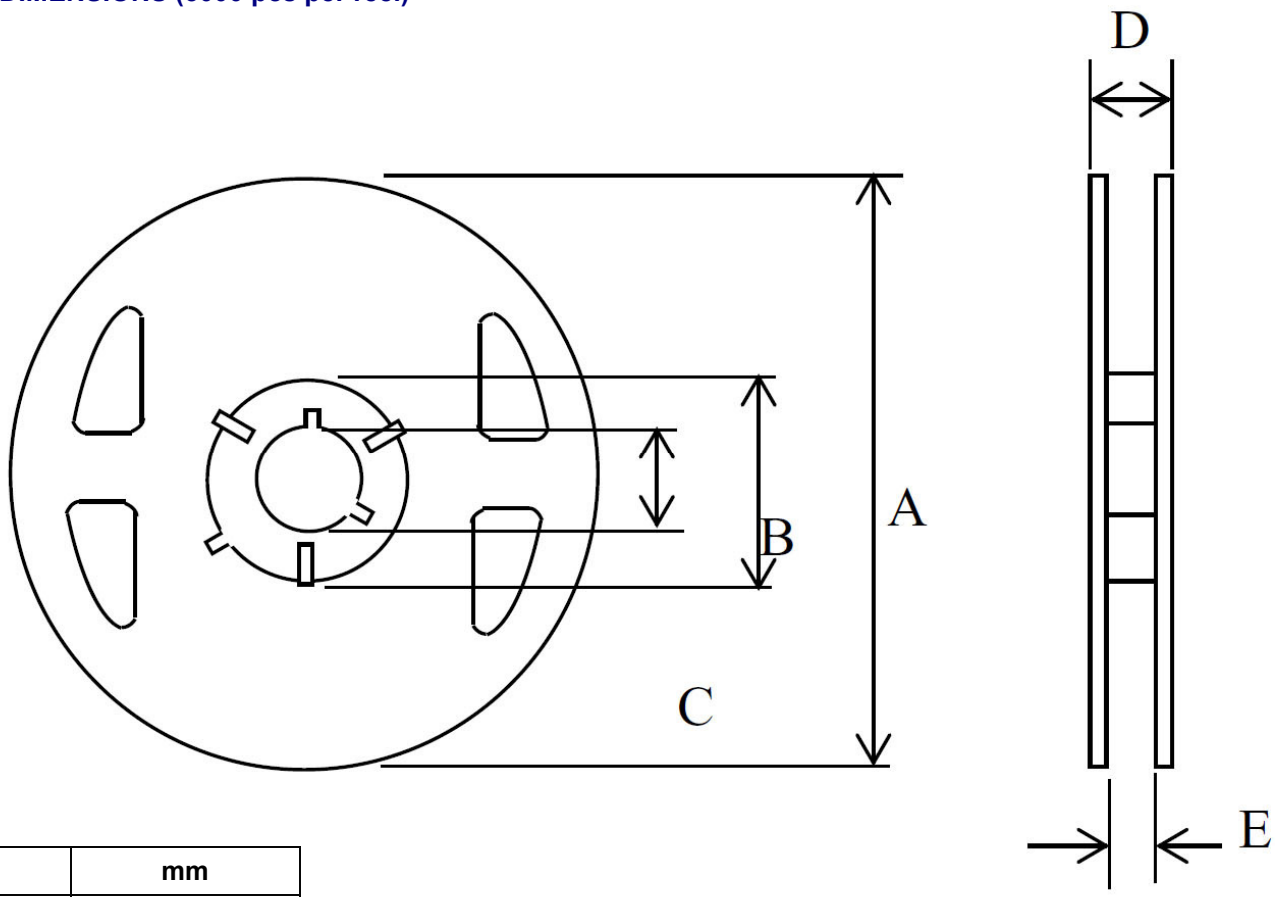
LEAD-FREE HEAT ENDURANCE TEST



LEAD-FREE RECOMMENDED REFLOW



REEL DIMENSIONS (3000 pcs per reel)



	mm
A	180
B	60
C	13 +0.5 / -0.2
D	14.4
E	8.4