

# F4P322518Q TYPE

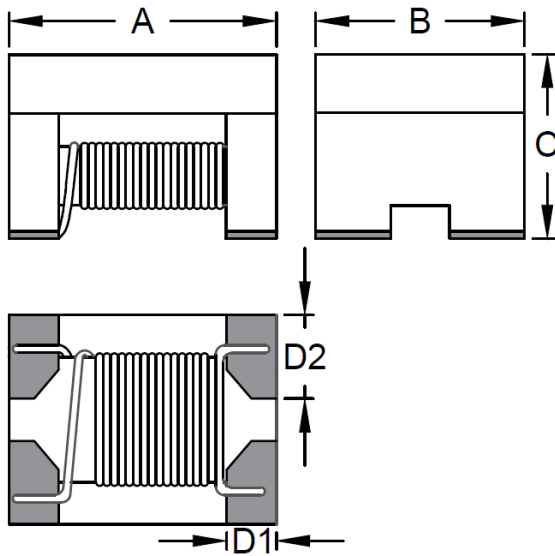
● FEATURE

1. Ideal for use as common-mode chokes
2. AEC-Q200 Qualified

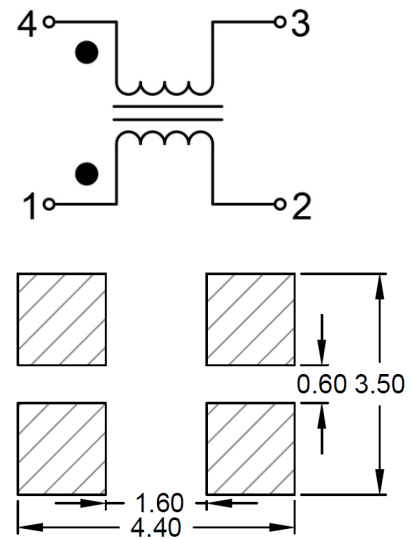
● Applications

1. CAN-BUS, FAXs, modems, ISDNs, etc
2. For automobile signal line

● Shape and Dimension



● Schematics and Land Patterns(mm)



A=3.20±0.20mm ; B=2.50±0.20mm; C=1.80mm Max.; D1=0.60mm Ref.; D2=1.00mm Ref.

● Specification

PART NO.	Common Mode Inductance		Common Mode Impedance		Rated Current (mA) Max.	Rated Voltage Withstand Voltage (Vdc)	Insulation Resistance (MΩ) Min.	DC Resistance (Ω) Max.
	(uH) at 100kHz	+50% -30%	(Ω) at 10MHz	Min. Typ.				
F4P322518Q-110	11	+50% -30%	320 580	Min. Typ.	230	80 125	10	0.55
F4P322518Q-220	22	+50% -30%	600 1200	Min. Typ.	180	80 125	10	0.75
F4P322518Q-510	51	+50% -30%	1400 3000	Min. Typ.	100	80 125	10	2.5
F4P322518Q-101	100	+50% -30%	2200 4500	Min. Typ.	70	80 125	10	4.0

Note1. Measurement ambient temperature of electrical : at 20°C

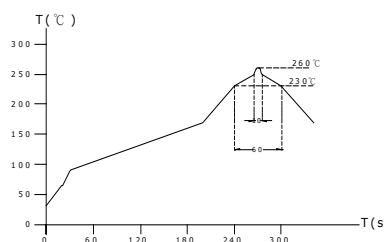
Note2. Test equipment: HP4294A

Note3. Packaging: Taping ; Quantity: 2000 Pieces/Reel

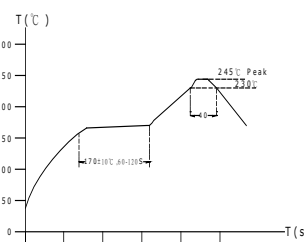
## GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 150°C (Includes temperature when the coil is heated)
2. High temperature exposure(storage) refer MIL-STD-202 Method 108: 1000 hrs at rated operating temperature(e.g. 150°C). Part can be stored for 1000 hrs @150°C. Unpowered. Measurement at 24±4 hours after test conclusion.
3. Temperature cycling refer JESD22 Method JA-104: 1000 cycles(-40 TO + 150°C). Measurement at 24±4 hours after test conclusion. 30 min maximum dwell time at each temp. extreme. 1 min. maximum transition time.
4. Biased Humidity refer MIL-STD-202 Method 103: 1000 hours 85°C/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.
5. Operational Life refer MIL-PRF-27: 1000 hrs. at 150°C tested. Measurement at 24±4 hours after test conclusion.
6. External Visual refer MIL-STD-883 Method 2009: Inspect device construction, marking and workmanship.
7. Physical Dimension refer JESD22 Method JB-100: Verify physical dimensions to the applicable device detail specification.
8. Resistance to Solvents refer MIL-STD-202 Method 215: Add aqueous wash chemical - OKEM clean or equivalent.
9. Mechanical Shock refer MIL-STD-202 Method 213: Figure 1 of Method 213. Condition C.
10. Vibration refer MIL-STD-202 Method 204: 5g;s for 20 minutes, 12 cycles each of 3 orientations. Test from 10-2000 Hz.
11. Resistance to soldering Heat refer MIL-STD-202 Method 210: Condition B No pre-heat of samples. Single wave solder-procedure 2 for SMD and procedure 1 for leaded with solder within 1.5mm of device body.
12. ESD refer AEC-Q200-002 or ISO/DIS 10605: Direct contact discharge 2kV.
13. Solder-ability refer J-STD-002: For both Leaded & SMD. Magnification 50X. Conditions: Leaded, Method A@235°C,category 3 ; SMD, a)Method B, 4hrs@150°C dry heat @235°C, b)Method B@215°C category 3., c)Method D category 3@260°C
14. Electrical Characterization refer spec: Show Min, Max Mean and Standard deviation at room from Min and Max temperature.
15. Flammability refer UL-94: V-0 or V-1 Acceptable.
16. Board Flex refer AEC-Q200-005: 60 sec minimum holding time.
17. Terminal Strength(SMD) refer AEC-Q200-006
18. Reflow profile recommend:

Lead-free heat endurance test

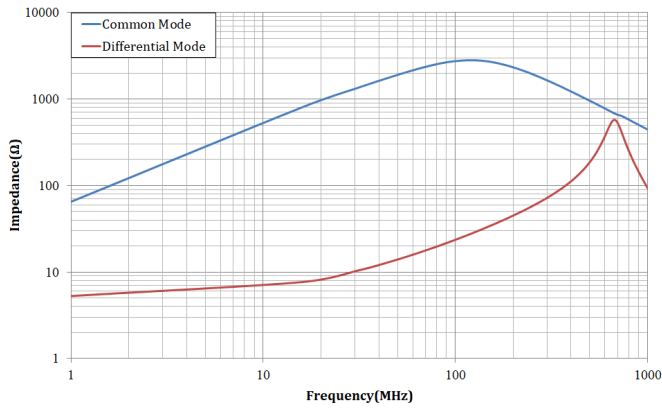


Lead-free the recommended reflow condition

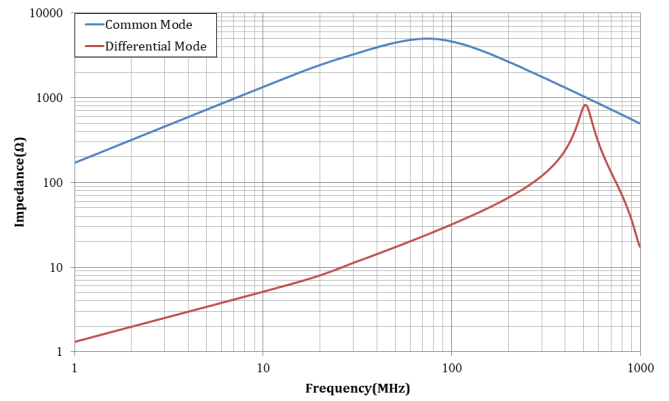


● Performance Curves(Impedance VS Frequency)

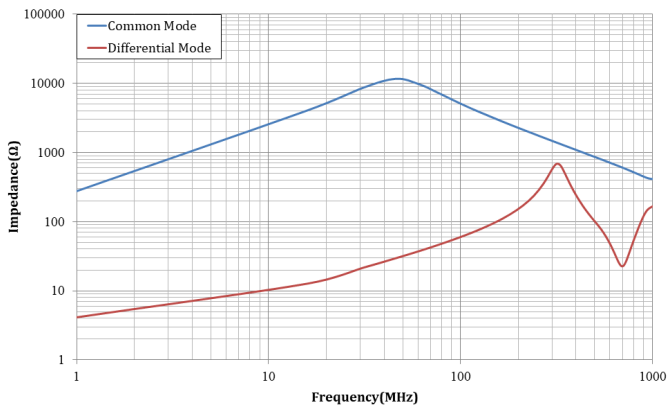
F4P322518Q-110



F4P322518Q-220



F4P322518Q-510



F4P322518Q-101

