F4P322518Q1 TYPE

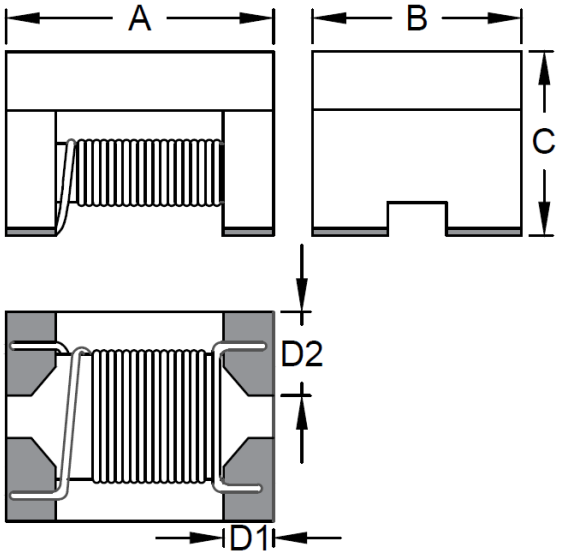
●FEATURE

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

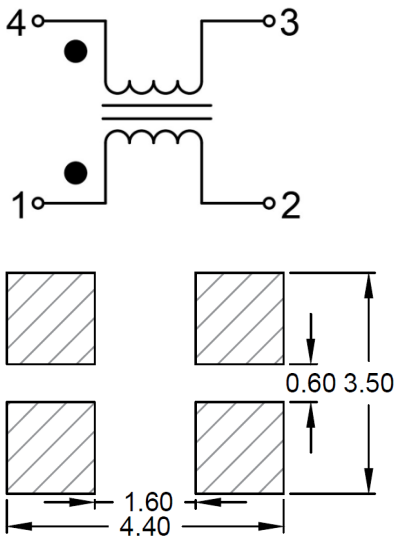
●Applications

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 (uH) at 100kHz		Common Mode Impedance (Ω) at 10MHz		Rated Current (mA) Max.	Rated Voltage Withstand Voltage (Vdc)	Insulation Resistance (MΩ) Min.	DC Resistance (Ω) Max.
F4P322518Q1-110	11	+50% -30%	320 580	Min. Typ.	230	80 125	10	0.55
F4P322518Q1-220	22	+50% -30%	600 1200	Min. Typ.	180	80 125	10	0.75
F4P322518Q1-510	51	+50% -30%	1400 3000	Min. Typ.	100	80 125	10	2.5
F4P322518Q1-101	100	+50% -30%	2200 4500	Min. Typ.	70	80 125	10	4.0

Note1. Measurement ambient temperature of electrical : at 20℃

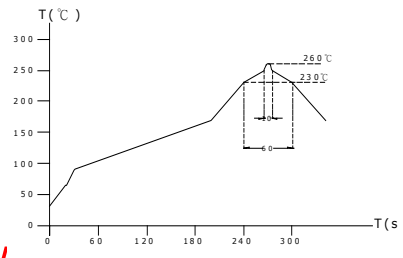
Note2. Test equipment: HP4294A

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

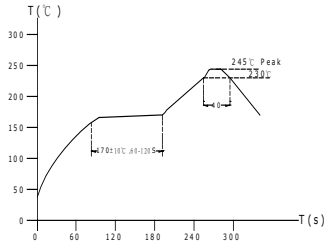
GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 125℃(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. 125℃). Part can be stored for 1000 hrs @125℃. Unpowered. Measurement at 24±4 hours after test conclusion.
3. Temperature cycling refer JESD22 Method JA-104: 1000 cycles(-40 TO + 125℃). 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℃/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.
5. Operational Life refer MIL-PRF-27: 1000 hrs. at 125℃ 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. Solderability refer J-STD-002: For both Leaded & SMD. Magnification 50X. Conditions: Leaded, Method A@235℃,category 3 ; SMD, a)Method B, 4hrs@125℃ dry heat @235℃, b)Method B@215℃ category 3., c)Method D category 3@260℃
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

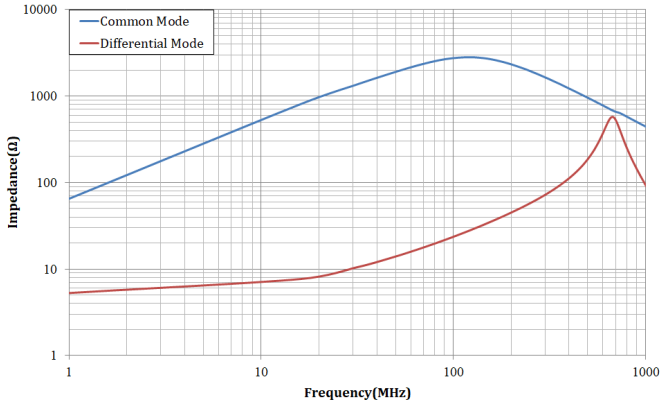


Lead-free the recommended reflow condition



●Performance Curves(Impedance VS Frequency)

F4P322518Q1-110



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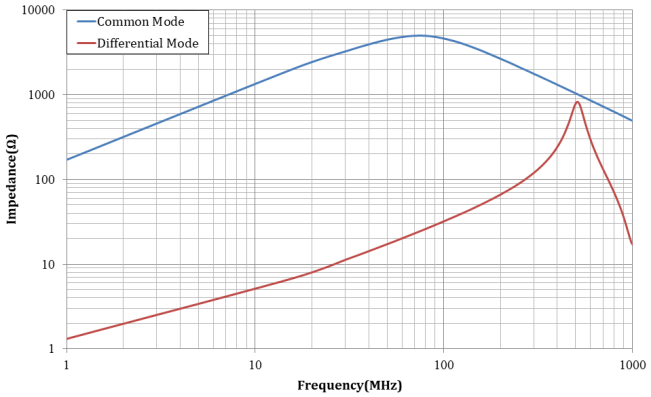

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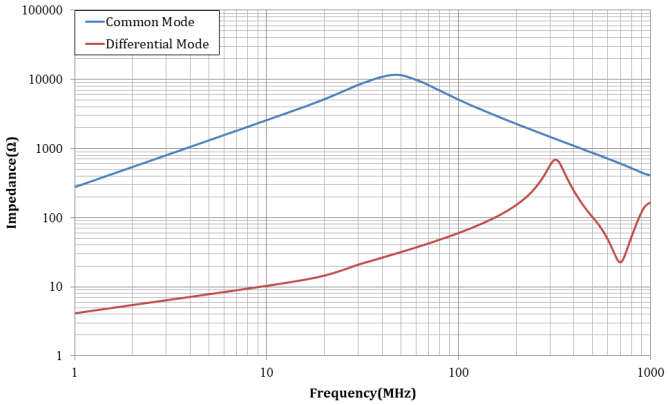

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