

F4P4532ELQ TYPE

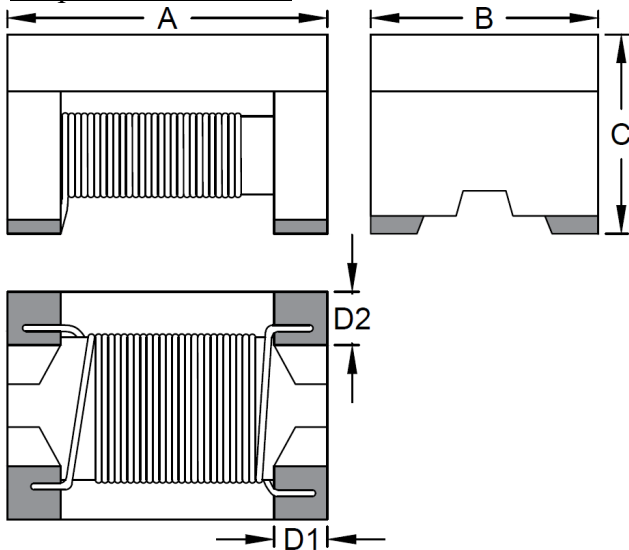
● FEATURE

1. For automobile signal line
2. AEC-Q200 Qualified. (150 degree Grade)

● Applications

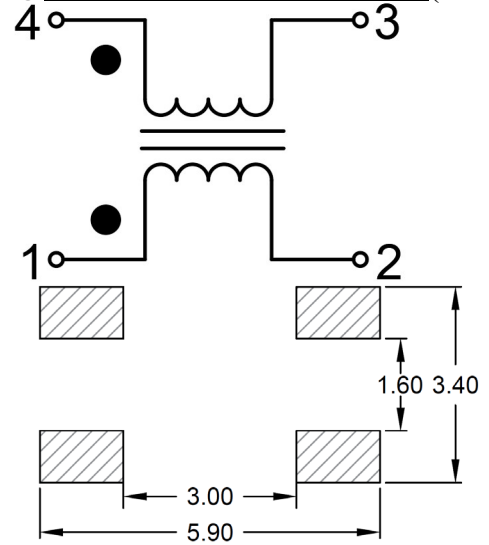
1. CAN-BUS, FlexRay, etc

● Shape and Dimension



A=4.50±0.20mm ; B=3.20±0.20mm ; C=2.80±0.20mm ; D1=0.70mm Ref. ; D2=0.70mm Ref.

● Schematics and Land Patterns(mm)



● 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		(Ω) at 10MHz					
F4P4532ELQ-110	11	+50% -30%	300 Min. 600 Typ.		250	50 125	10	0.6
F4P4532ELQ-220	22	+50% -30%	500 Min. 1200 Typ.		200	50 125	10	1.0
F4P4532ELQ-510	51	+50% -30%	1000 Min. 2800 Typ.		200	50 125	10	1.0
F4P4532ELQ-101	100	+50% -30%	2000 Min. 5800 Typ.		150	50 125	10	2.0

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

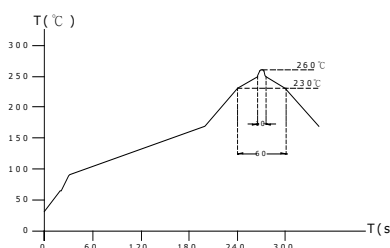
Note2. Test equipment: HP4294A

Note3. Packaging: Taping ; Quantity: 500 Pieces/Reel

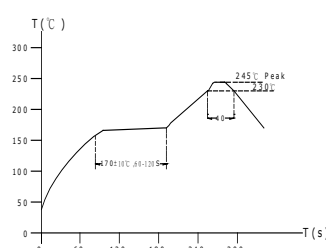
GENERAL CHARACTERISTICS

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. Solderability 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

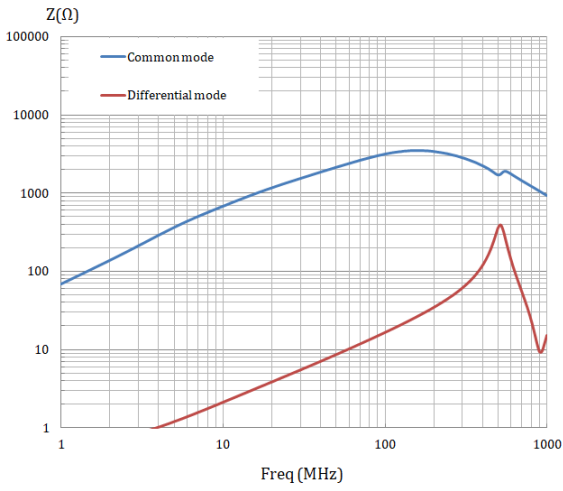


Lead-free the recommended reflow condition

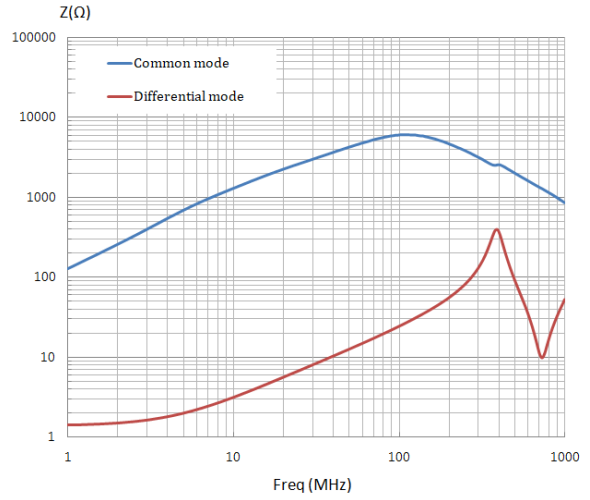


● Performance Curves(Impedance VS Frequency)

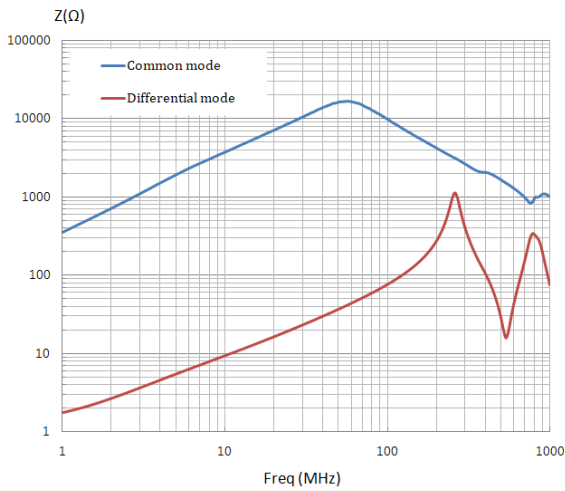
F4P4532ELQ-110



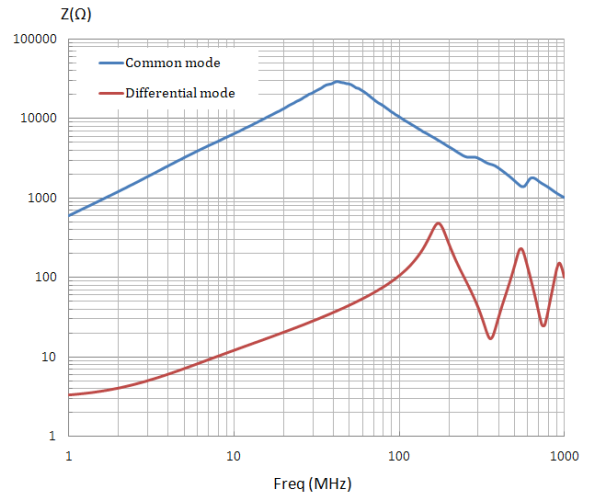
F4P4532ELQ-220



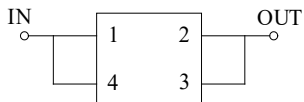
F4P4532ELQ-510



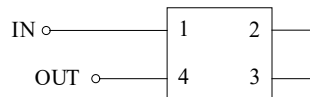
F4P4532ELQ-101



● Test circuit



COMMON MODE



NORMAL MODE