

F4P4532EMQ TYPE

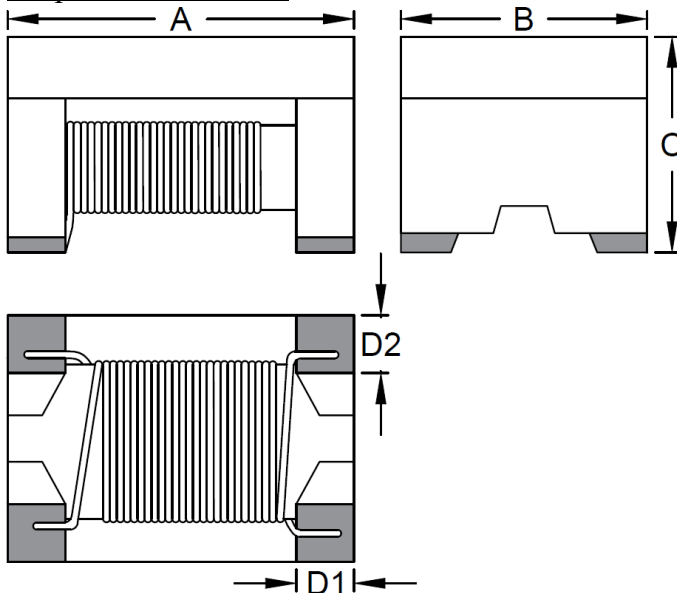
● FEATURE

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

● Applications

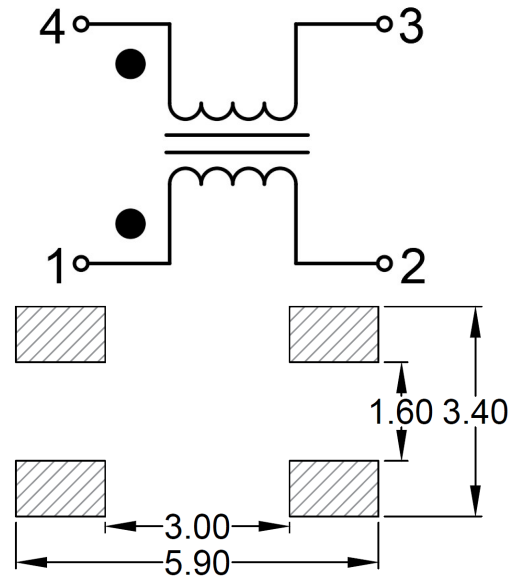
1. CAN-BUS, FlexRay, etc

● 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 (uH) +50%, -30% | Common Mode Impedance (Ω) at 10MHz | Rated Current (mA) Max. | Rated Voltage (Vdc) | Insulation Resistance (MΩ) Min. | DC Resistance (Ω) Max. |
|-----------------|---|---------------------------------------|----------------------------|---------------------|------------------------------------|---------------------------|
| F4P4532EMQ-110X | 11 at 100kHz | 300 Min. | 360 | 50 | 10 | 0.5 |
| F4P4532EMQ-220 | 22 at 100kHz | 500 Min. | 310 | 50 | 10 | 0.6 |
| F4P4532EMQ-510 | 51 at 1MHz | 1000 Min. | 230 | 50 | 10 | 1.0 |
| F4P4532EMQ-101 | 100 at 1MHz | 2000 Min. | 200 | 50 | 10 | 2.0 |

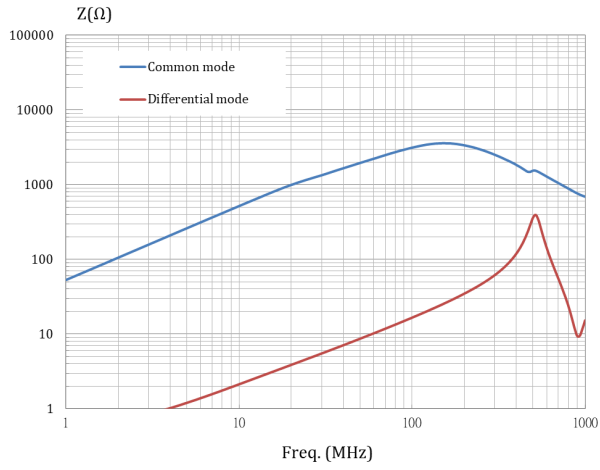
Note1. Measurement ambient temperature of electrical : at 25°C

Note2. Test equipment: HP4291A

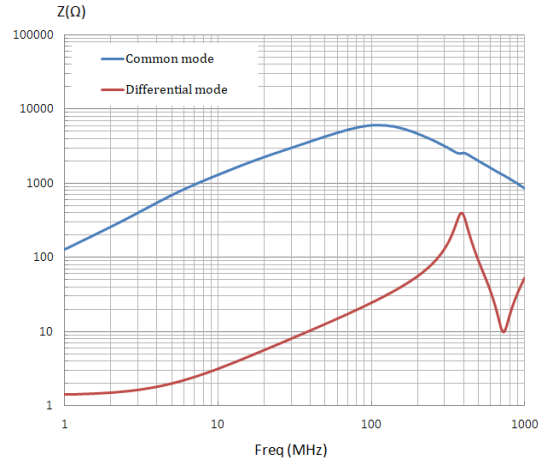
Note3. Packaging: Taping ; Quantity: 500 Pieces/reel

● Performance Curves(Impedance VS Frequency)

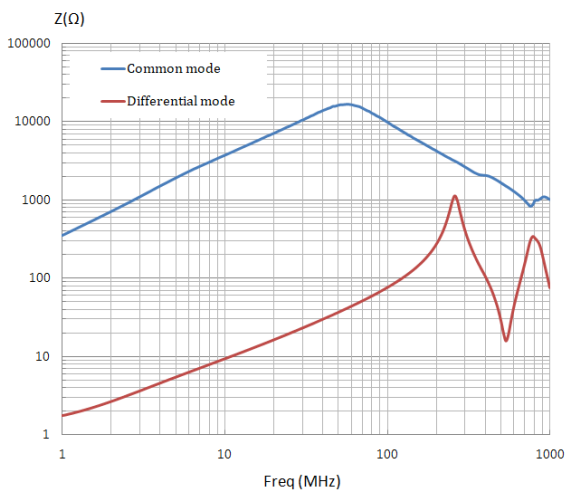
F4P4532EMQ-110X



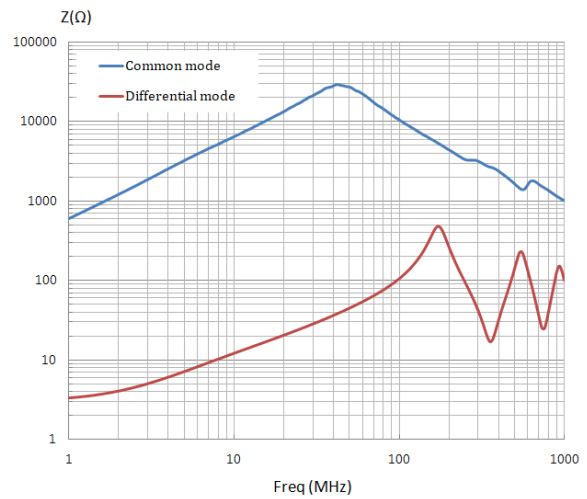
F4P4532EMQ-220



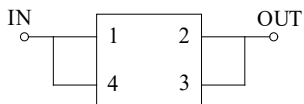
F4P4532EMQ-510



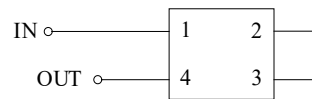
F4P4532EMQ-101



● Test circuit



COMMON MODE

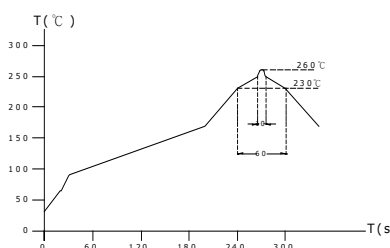


NORMAL MODE

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

