

**F4P3225ERQ TYPE**

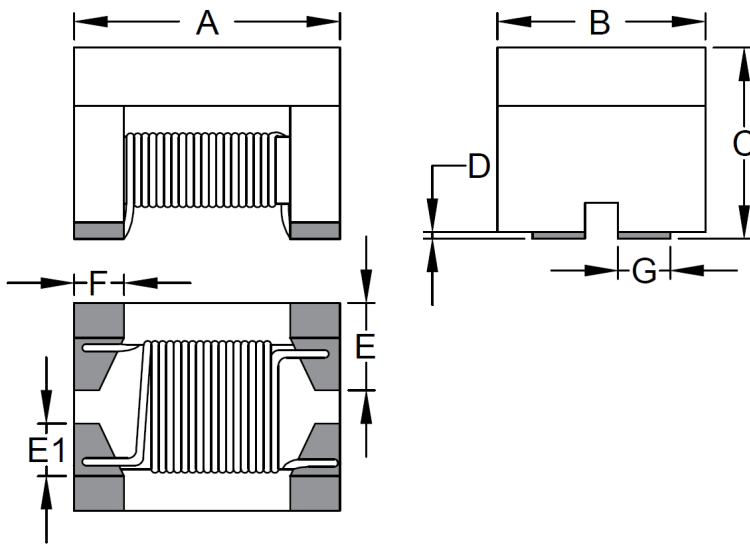
● FEATURE

1. For automobile signal line
2. AEC-Q200 Qualified.

● Applications

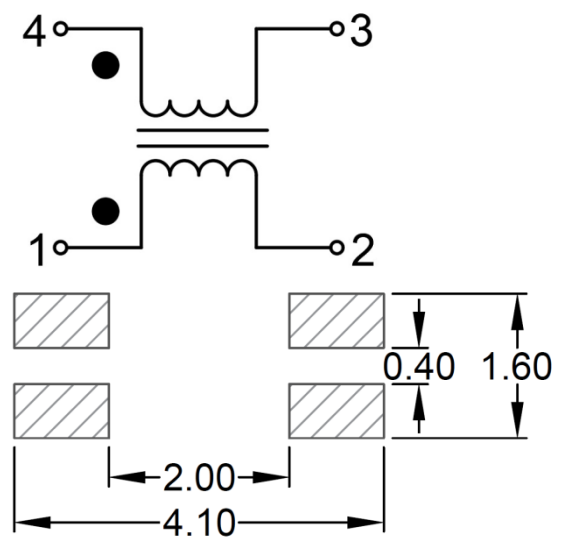
1. CAN-BUS, FlexRay, etc

● Shape and Dimension



A= 3.2±0.20mm ; B=2.5±0.20mm ; C=2.50mm Max. ; D=0.08mm Typ. ; E=1.00mm Typ. ; E1=0.63mm Typ. ; F=0.60mm Typ. ; G=0.63mm Typ.

● 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.
	(μH) at 100kHz	+50% -30%	(Ω) at 10MHz	Min. Typ.				
F4P3225ERQ-110	11	+50% -30%	300 Min. 550 Typ.		300	80 125	10	0.4
F4P3225ERQ-220	22	+50% -30%	500 Min. 1100 Typ.		250	80 125	10	0.5
F4P3225ERQ-510	51	+50% -30%	1000 Min. 2600 Typ.		200	80 125	10	0.7
F4P3225ERQ-101	100	+50% -30%	2200 Min. 5100 Typ.		150	80 125	10	1.5

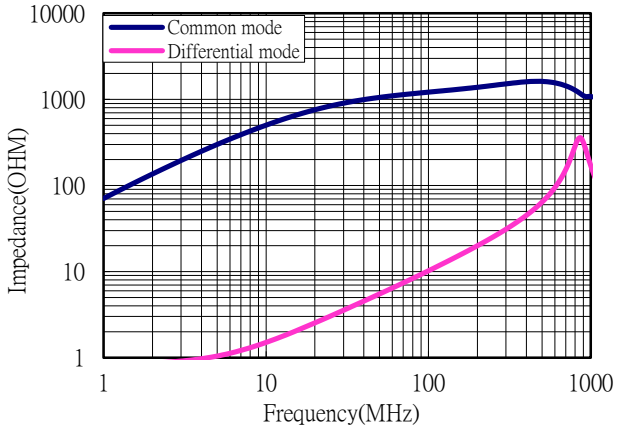
Note1. Measurement ambient temperature of electrical : at 20°C

Note2. Test equipment: HP4294A

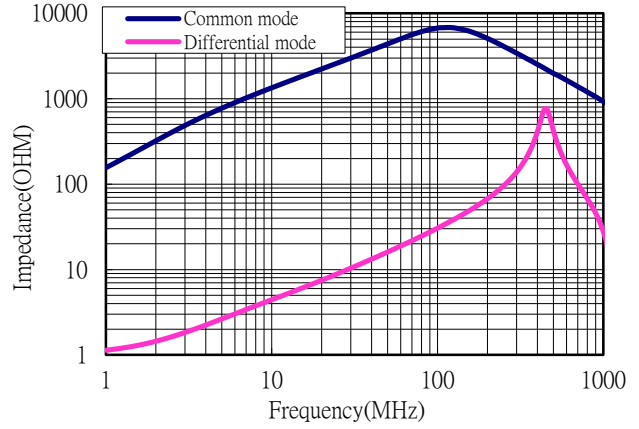
Note3. Packaging: Taping ; Quantity: 2000 Pieces/Reel

● **Performance Curves(Impedance VS Frequency)**

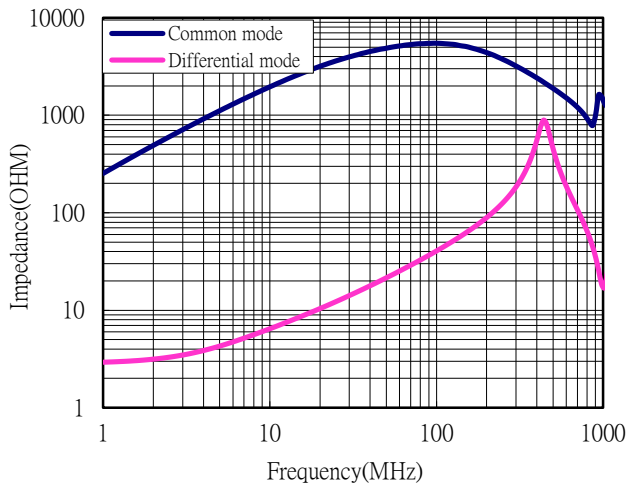
**F4P3225ERQ-110**



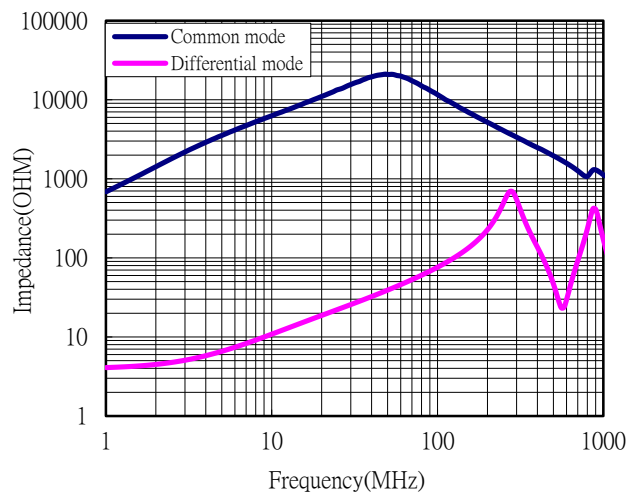
**F4P3225ERQ-220**



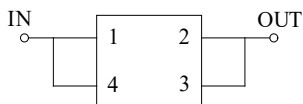
**F4P3225ERQ-510**



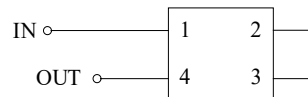
**F4P3225ERQ-101**



● **Test circuit**



COMMON MODE

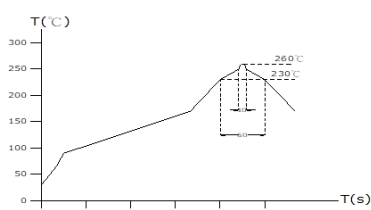


NORMAL MODE

## 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. 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

