

PI07050Q1 TYPE

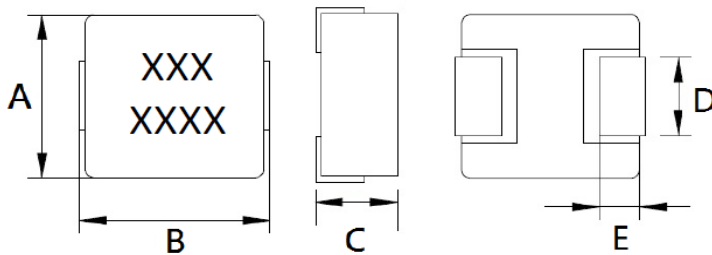
●FEATURE

1. Shielded construction , Frequency range up to 5MHz
2. AEC-Q200 Grade 1 qualified

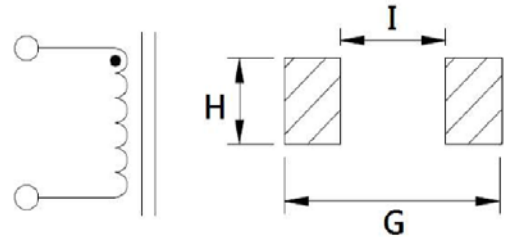
●Applications

1. DC-DC for Automotive

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=6.80m/m Max ; B=7.30m/m Max ; C=5.00m/m Max. ; D=3.00±0.3m/m ; E=1.50m/m Ref. ; G=8.00m/m Ref. ; H=3.45m/m Ref. ; I=3.70m/m Ref.

●Specification

FENG JUI P/N	L (μ H)	RDC (m Ω) Typical	RDC (m Ω) Max	Isat (A)	Irms (A)
PI07050Q1-R56M	0.56±20%	3.4	4.3	12.0	20.0
PI07050Q1-R68M	0.68±20%	4.2	4.5	11.5	18.0
PI07050Q1-R82M	0.82±20%	4.6	4.9	13.0	16.5
PI07050Q1-1R0M	1.0±20%	5.6	6.5	15.0	12.0
PI07050Q1-1R5M	1.5±20%	8.6	9.0	12.0	11.5
PI07050Q1-2R2M	2.2±20%	13	13.6	10.0	10.0
PI07050Q1-3R3M	3.3±20%	19.9	20.9	8.0	8.0
PI07050Q1-4R7M	4.7±20%	28.9	30.3	7.0	6.5
PI07050Q1-5R6M	5.6±20%	32.7	34.4	7.0	6.0
PI07050Q1-6R8M	6.8±20%	42.5	44.6	5.5	5.5
PI07050Q1-8R2M	8.2±20%	48.3	50.7	5.0	5.0
PI07050Q1-100M	10±20%	67.9	71.3	4.5	4.5
PI07050Q1-150M	15±20%	90.0	100	4.3	4.3
PI07050Q1-220M	22±20%	145	155	4.0	3.5
PI07050Q1-330M	33±20%	215	260	2.0	2.0
PI07050Q1-470M	47±20%	300	330	1.8	1.5

Note1. Measurement frequency of Inductance value : at 100KHz

Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. Isat: DC current at which the inductance drops 20%(typ) from its value without current

Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(typical)

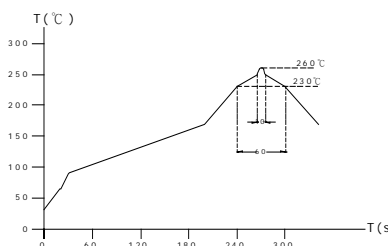
Note5. Inductance tolerance: M: $\pm 20\%$

Note6. Packaging: Taping ; Quantity: 800 pieces/reel

GENERAL CHARACTERISTICS

1. Operating temperature range: -55 TO + 125°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. 125°C). Part can be stored for 1000 hrs @125°C. Unpowered. Measurement at 24±4 hours after test conclusion.
3. Temperature cycling refer JESD22 Method JA-104: 1000 cycles(-55 TO + 125°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 125 °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@155°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

