

PIC07030Q1 TYPE

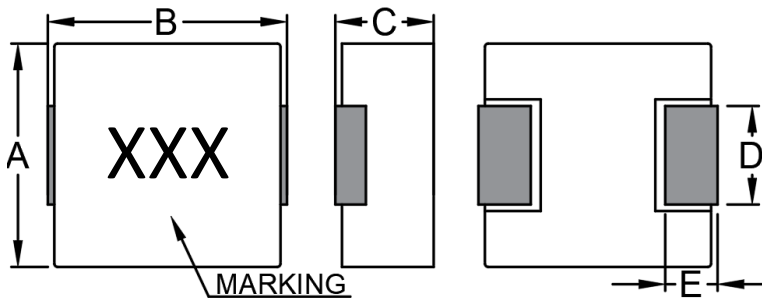
● FEATURE

1. Shielded construction
2. Alloy metal material used, Low DCR ,Low Buzz Noise
3. AEC-Q200 qualified

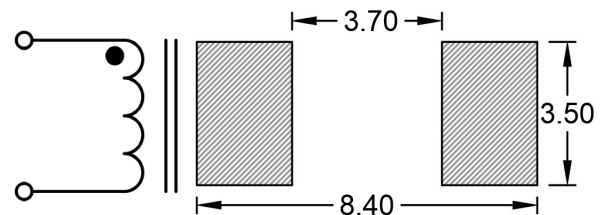
● Applications

1. Notebook, server application, High current power supplier

● Shape and Dimension



● Schematics and Land Patterns(mm)



A=6.80mm Max. ; B=7.30mm Max. ; C=3.00mm Max. ; D=3.00±0.30mm. ; E=1.60mm±0.30mm.

● Specification

P/N	L (uH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIC07030Q1-R22M	0.22±20%	2.5	3.0	34.0	24.0
PIC07030Q1-R33M	0.33±20%	3.0	3.5	25.0	21.0
PIC07030Q1-R47M	0.47±20%	3.5	4.1	20.0	18.0
PIC07030Q1-R56M	0.56±20%	3.9	4.5	18.0	16.5
PIC07030Q1-R68M	0.68±20%	4.8	5.3	17.0	16.0
PIC07030Q1-R82M	0.82±20%	5.4	6.0	16.0	14.0
PIC07030Q1-1R0M	1.00±20%	6.7	7.4	15.0	12.0
PIC07030Q1-1R5M	1.50±20%	10.6	12.1	14.0	11.0
PIC07030Q1-2R2M	2.20±20%	13.5	15.0	10.0	9.5
PIC07030Q1-3R3M	3.30±20%	18.0	22.0	9.5	8.5
PIC07030Q1-4R7M	4.70±20%	28.0	33.0	6.5	6.0
PIC07030Q1-6R8M	6.80±20%	42.5	48.0	6.0	5.5
PIC07030Q1-8R2M	8.20±20%	54.0	60.0	6.0	5.0
PIC07030Q1-100M	10.0±20%	62.0	67.0	5.5	4.8
PIC07030Q1-150M	15.0±20%	104.0	115.0	4.5	3.0
PIC07030Q1-220M	22.0±20%	180.0	200.0	3.0	2.3
PIC07030Q1-330M	33.0±20%	280.0	310.0	2.5	2.0

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Note1. Measurement frequency of Inductance value : at 100kHz, 1.0V

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

Note3. Isat: DC current at which the inductance drops 30%(Typ.) from its value without current

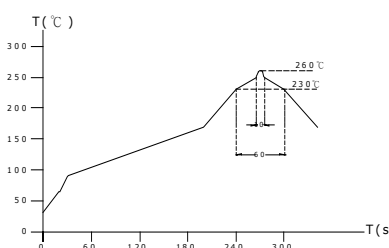
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(Typ.)

Note5. Packaging: Taping ; Quantity: 1500 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

