

PIC252010LQ1 TYPE

●FEATURE

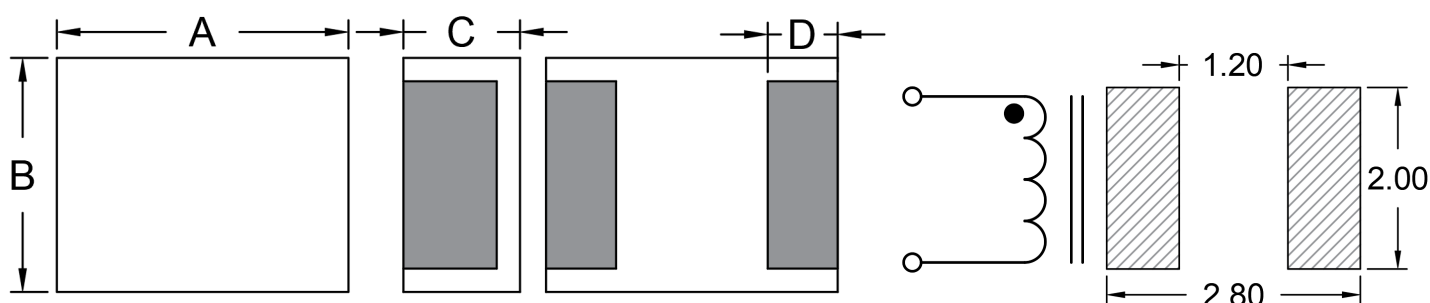
1. Shielded construction(height=1.00mm Max.)
2. 100% lead (Pb) free meet RoHS standard
3. AEC-Q200 Qualified

●Applications

1. DC/DC converter for CPU in Notebook PC
2. Cellular phones, LCD displays, HDDs, DVCs, DSCs, PDAs etc..
3. Thin type on-board power supply module for exchanger

●Shape and Dimension

●Schematics and Land Patterns(mm)



A=2.50±0.20mm ; B=2.0±0.2mm ; C=1.00mm Max. ; D=0.60±0.30mm.

●Specification

P/N	L (μ H)	RDC (m Ω) Typ.	RDC (m Ω) Max.	Isat (A) Typ.	Isat (A) Max.	Irms (A) Typ.	Irms (A) Max.
PIC252010LQ1-R22M	0.22±20%	9.0	12.5	7.9	7.2	5.9	5.3
PIC252010LQ1-R33M	0.33±20%	21.0	26.0	6.6	6.0	4.4	4.0
PIC252010LQ1-R47M	0.47±20%	27.0	32.0	5.0	4.5	3.9	3.51
PIC252010LQ1-1R0M	1.00±20%	45.0	54.0	3.5	3.15	3.0	2.70
PIC252010LQ1-1R5M	1.50±20%	76.0	91.0	2.6	2.34	2.5	2.25
PIC252010LQ1-2R2M	2.20±20%	99.0	119.0	2.4	2.16	2.3	2.07

Note1. Measurement frequency of Inductance value : at 1MHz, 1V

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

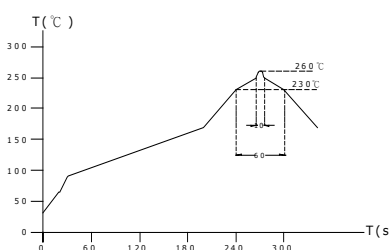
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(Typ.)

Note5. Packaging: Taping ; Quantity: 3000 Piece/reel

GENERAL CHARACTERISTICS

1. Operating temperature range: -40 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(-40 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@125°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

