

PIT10040Q TYPE

● FEATURE

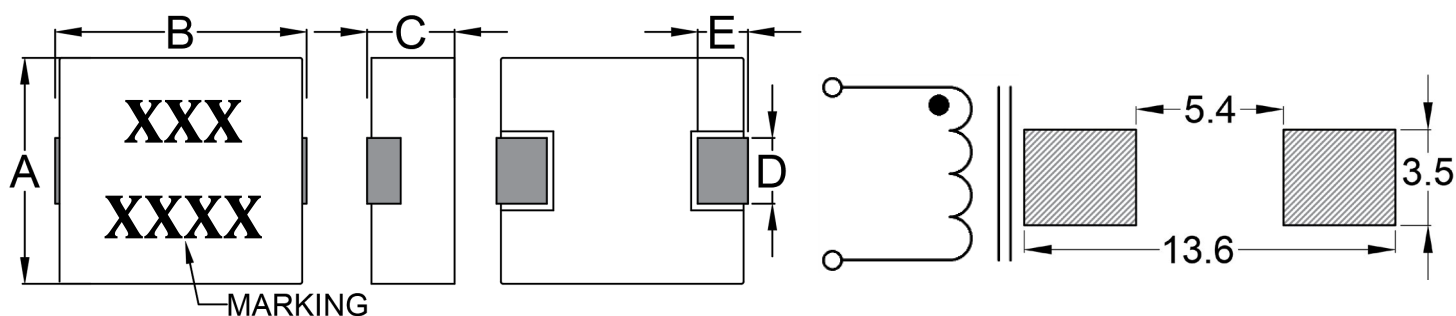
1. Shielded construction
2. AEC-Q200 Qualified

● Applications

1. Server, high current power supplies, DC/DC converters

● Shape and Dimension

● Schematics and Land Patterns(mm)



A=10.0±0.30mm ; B=11.0±0.50mm ; C=4.00mm Max. ; D=3.00±0.30mm ;

E=2.3±0.30m/m; ● Specification

P/N	L (μ H)	RDC (m Ω) Max.	Isat (A)	Irms (A)
PIT10040Q-R10N	0.10±30%	0.41	85.0	46.0
PIT10040Q-R15N	0.15±30%	0.60	75.0	43.0
PIT10040Q-R22M	0.22±20%	1.0	60.0	35.0
PIT10040Q-R33M	0.33±20%	1.2	60.0	31.0
PIT10040Q-R47M	0.47±20%	1.5	43.0	28.0
PIT10040Q-R56M	0.56±20%	1.8	40.0	25.0
PIT10040Q-R68M	0.68±20%	2.7	39.0	22.0
PIT10040Q-1R0M	1.0±20%	3.3	36.0	18.0
PIT10040Q-1R5M	1.5±20%	4.6	33.0	16.0
PIT10040Q-2R2M	2.2±20%	7.0	27.0	12.0
PIT10040Q-3R3M	3.3±20%	11.8	20.0	11.0
PIT10040Q-4R7M	4.7±20%	15.5	17.0	10.0
PIT10040Q-5R6M	5.6±20%	19.3	14.0	9.0
PIT10040Q-6R8M	6.8±20%	23.3	13.5	8.5
PIT10040Q-8R2M	8.2±20%	28.0	12.5	8.0
PIT10040Q-100M	10±20%	30.0	12.0	7.5

P/N	L (μ H)	RDC (m Ω) Max.	Isat (A)	Irms (A)
PIT10040Q-150M	15 \pm 20%	45.0	10.0	6.25
PIT10040Q-220M	22 \pm 20%	74.0	7.0	5.0
PIT10040Q-330M	33 \pm 20%	112	5.0	3.5
PIT10040Q-470M	47 \pm 20%	167	4.5	3.0
PIT10040Q-680M	68 \pm 20%	220	3.0	2.0
PIT10040Q-820M	82 \pm 20%	320	2.5	1.5

Note1. Measurement frequency of Inductance value : at 100KHz/1V

Note2. Measurement ambient temperature of L, DCR and IDC : at 25 $^{\circ}$ C

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

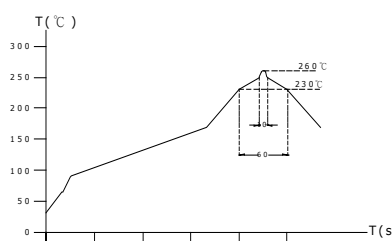
Note4. Irms: Average current for 40 $^{\circ}$ C temperature rise from 25 $^{\circ}$ C ambient(Typ.)

Note5. Packaging: Taping : 500 Piece/reel

GENERAL CHARACTERISTICS

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

