

# PIT17070Q1 TYPE

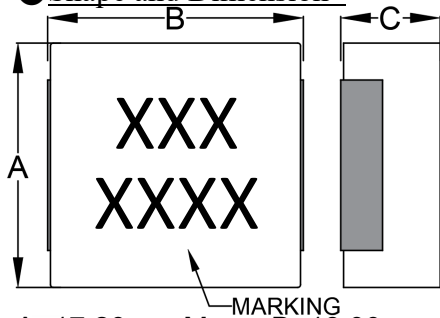
● FEATURE

1. Shielded construction
2. Low Buzz Noise
3. AEC-Q200 Qualified

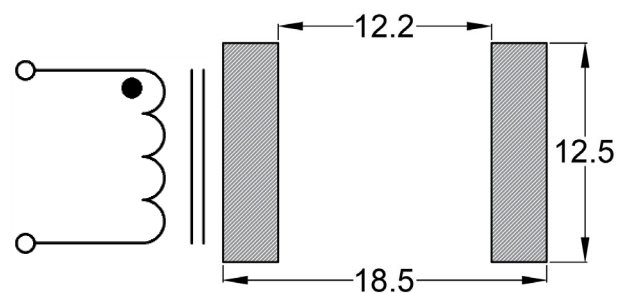
● Applications

1. DC-DC for automotive

● Shape and Dimension



● Schematics and Land Patterns(mm)



A=17.20mm Max. ; B=18.00mm Max. ; C=7.00mm Max. ; D=12.00±0.30mm ; E=2.20mm Ref.

● Specification

P/N	L (uH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIT17070Q1-1R0M	1.0±20%	1.6	2.0	60.0	52.0
PIT17070Q1-1R5M	1.5±20%	2.0	2.5	52.0	47.0
PIT17070Q1-2R2M	2.2±20%	2.4	2.7	47.0	43.5
PIT17070Q1-3R3M	3.3±20%	3.5	3.9	45.0	28.0
PIT17070Q1-4R7M	4.7±20%	4.8	5.5	41.0	25.0
PIT17070Q1-5R6M	5.6±20%	5.8	7.1	40.0	21.0
PIT17070Q1-6R8M	6.8±20%	8.4	9.2	32.0	19.0
PIT17070Q1-8R2M	8.2±20%	9.6	10.8	25.0	18.0
PIT17070Q1-100M	10.0±20%	11.8	13.0	24.0	16.5
PIT17070Q1-150M	15.0±20%	17.8	20.5	23.0	12.5
PIT17070Q1-220M	22.0±20%	25.1	26.6	18.0	12.0
PIT17070Q1-330M	33.0±20%	38.0	44.0	15.0	10.7
PIT17070Q1-470M	47.0±20%	48.0	55.0	9.5	8.7
PIT17070Q1-560M	56.0±20%	54.0	62.0	9.0	8.7
PIT17070Q1-680M	68.0±20%	68.0	80.0	8.0	7.0
PIT17070Q1-820M	82.0±20%	87.0	100.0	7.0	5.7
PIT17070Q1-101M	100.0±20%	102.0	118.0	6.5	5.3

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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 20%(Typ.) from its value without current

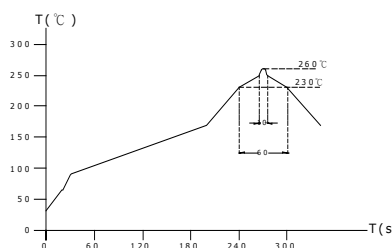
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(Typ.)

Note5. Packaging: Taping ; Quantity: 200 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(-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@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

