

## PIT13065Q1 TYPE

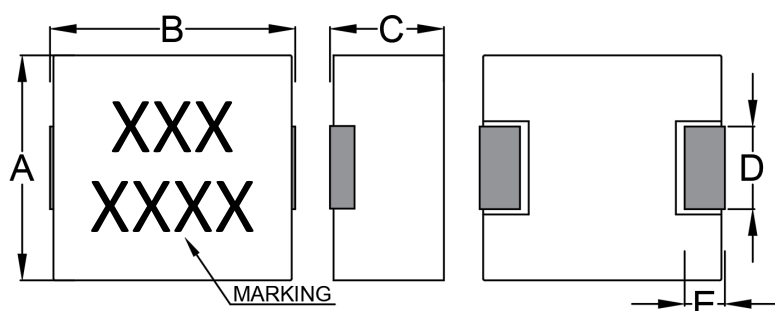
### ●FEATURE

1. Shielded construction
2. Frequency range up to 5MHz, Low DCR, Low Buzz Noise
3. AEC-Q200 Qualified

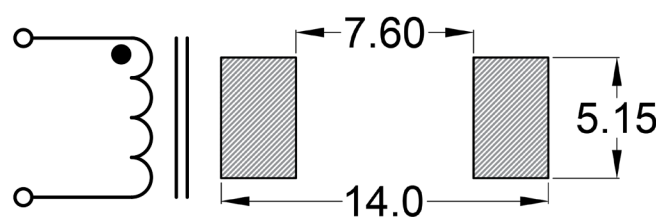
### ●Applications

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

### ●Shape and Dimension



### ●Schematics and Land Patterns(mm)



A=12.80mm Max. ; B=14.00mm Max. ; C=6.50mm Max. ; D=4.70±0.30mm ; E=2.30±0.30mm

### ●Specification

P/N	L (uH)	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIT13065Q1-R15M	0.15±20%	0.6	118.0	55.0
PIT13065Q1-R22M	0.22±20%	0.6	112.0	53.0
PIT13065Q1-R33M	0.33±20%	0.8	68.0	46.0
PIT13065Q1-R36M	0.36±20%	0.9	66.0	45.0
PIT13065Q1-R40M	0.40±20%	1.0	64.0	44.0
PIT13065Q1-R47M	0.47±20%	1.2	63.0	41.0
PIT13065Q1-R56M	0.56±20%	1.2	58.0	37.0
PIT13065Q1-R68M	0.68±20%	1.5	55.0	35.0
PIT13065Q1-R82M	0.82±20%	1.9	50.0	33.0
PIT13065Q1-1R0M	1.00±20%	2.3	48.0	30.0
PIT13065Q1-1R5M	1.50±20%	3.0	45.0	27.0
PIT13065Q1-2R2M	2.20±20%	4.2	37.0	22.0
PIT13065Q1-3R3M	3.30±20%	6.8	30.0	18.0
PIT13065Q1-4R7M	4.70±20%	8.4	28.0	13.5
PIT13065Q1-5R6M	5.60±20%	10.0	23.0	12.5
PIT13065Q1-6R8M	6.80±20%	11.5	18.0	11.5

P/N	L (uH)	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIT13065Q1-8R2M	8.20±20%	15.5	16.0	10.5
PIT13065Q1-100M	10.0±20%	16.5	15.5	10.0
PIT13065Q1-150M	15.0±20%	28.0	13.0	9.0
PIT13065Q1-220M	22.0±20%	37.0	12.0	9.0
PIT13065Q1-330M	33.0±20%	58.0	11.0	8.0
PIT13065Q1-470M	47.0±20%	90.0	9.5	6.5
PIT13065Q1-680M	68.0±20%	130.0	7.8	4.8
PIT13065Q1-820M	82.0±20%	155.0	6.5	4.5
PIT13065Q1-101M	100±20%	200.0	3.5	2.5

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

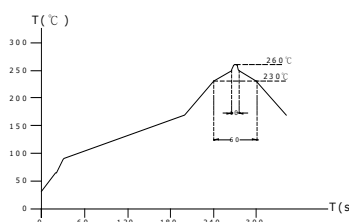
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(Typ.)

Note5. Packaging: Taping ; Quantity: 500 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@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

