

TPRH10D50Q1 TYPE

● FEATURE

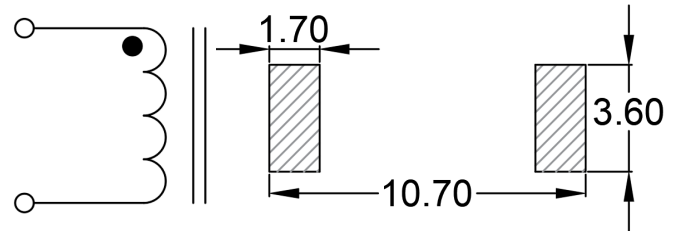
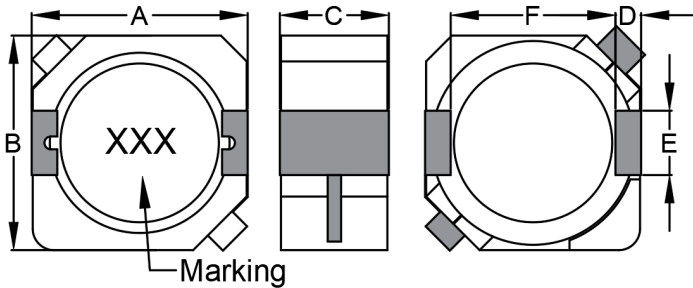
- 1. High current capacity ,Low DCR and magnetic shielded

● Applications

- 1. Portable telephone, Notebook, and other electronic equipment

● Shape and Dimension

● Schematics and Land Patterns(mm)



A= 10.10±0.30 mm ; B=10.00±0.30mm ; C=5.10mm Max. ; D=1.20mm Ref. ;
E=3.00mm Ref. ; F=7.70±0.30mm

● Specification

Part Number	L (uH)	Marking	DCR (Ω Max.)	Isat (A)	Irms (A)
TPRH10D50Q1-1R5□	1.5	1R5	5.8m	10.5	8.30
TPRH10D50Q1-2R2□	2.2	2R2	7.2m	9.25	7.50
TPRH10D50Q1-3R3□	3.3	3R3	10.4m	7.80	6.50
TPRH10D50Q1-4R7□	4.7	4R7	12.3m	6.40	6.10
TPRH10D50Q1-6R8□	6.8	6R8	18m	5.40	5.40
TPRH10D50Q1-7R2□	7.2	7R2	20m	5.20	5.20
TPRH10D50Q1-8R2□	8.2	8R2	20m	4.85	5.00
TPRH10D50Q1-100□	10	100	26m	4.45	4.50
TPRH10D50Q1-120□	12	120	33m	4.00	3.80
TPRH10D50Q1-150□	15	150	41m	3.60	3.40
TPRH10D50Q1-180□	18	180	46m	3.20	3.10
TPRH10D50Q1-220□	22	220	61m	2.95	2.90
TPRH10D50Q1-270□	27	270	69m	2.70	2.60
TPRH10D50Q1-330□	33	330	84m	2.40	2.50
TPRH10D50Q1-390□	39	390	106m	2.30	2.25
TPRH10D50Q1-470□	47	470	130m	2.00	2.00
TPRH10D50Q1-560□	56	560	149m	1.90	1.90
TPRH10D50Q1-680□	68	680	201m	1.65	1.60
TPRH10D50Q1-820□	82	820	227m	1.50	1.45

Part Number	L (uH)	Marking	DCR (Ω Max.)	Isat (A)	Irms (A)
TPRH10D50Q1-101□	100	101	253m	1.35	1.35
TPRH10D50Q1-121□	120	121	303m	1.28	1.18
TPRH10D50Q1-151□	150	151	370m	1.12	1.10
TPRH10D50Q1-181□	180	181	419m	1.04	1.00
TPRH10D50Q1-221□	220	221	500m	0.94	0.94
TPRH10D50Q1-271□	270	271	672m	0.84	0.80
TPRH10D50Q1-331□	330	331	812m	0.75	0.73
TPRH10D50Q1-391□	390	391	953m	0.70	0.70
TPRH10D50Q1-471□	470	471	1.29	0.60	0.54
TPRH10D50Q1-561□	560	561	1.43	0.54	0.52
TPRH10D50Q1-681□	680	681	1.60	0.52	0.51
TPRH10D50Q1-821□	820	821	1.77	0.50	0.48
TPRH10D50Q1-102□	1000	102	1.99	0.48	0.42

Note1. Measurement frequency of Inductance value : at 100KHz

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

Note3. Isat: DC current at which the inductance drops 35%(Max.) from its value without current

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

Note5. Inductance tolerance: N: $\pm 30\%$; M: $\pm 20\%$

Note6. Ordering Code: TYPE NAME: TPRH10D50Q1

Main Inductance: 100 (10uH)

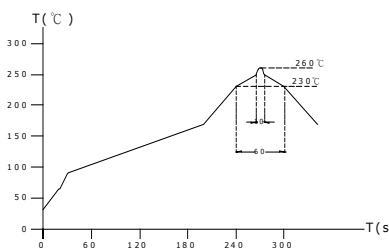
Tolerance : M ($\pm 20\%$)

Note7. Packaging: Taping ; Quantity: TPRH10D50Q1:750 Pieces/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

