

## TPRH 4D28Q1 TYPE

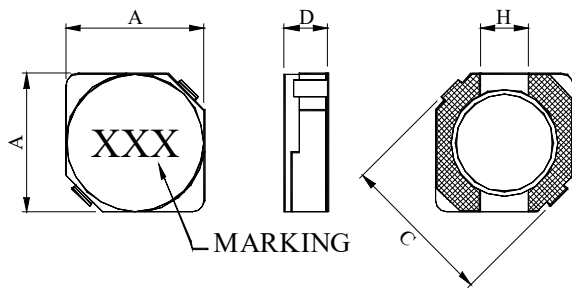
### ●FEATURE

1. Various high power inductors are superior to be high saturation for surface mounting

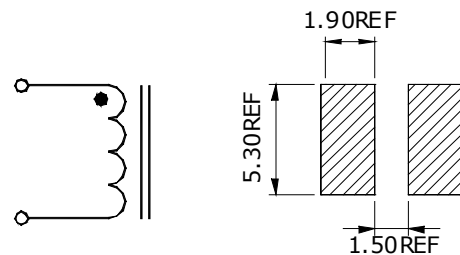
### ●Applications

1. DC-DC converter of portable equipment
2. Digital Camera, Notebook, Camcorder and others

### ●Shape and Dimension



### ●Schematics and Land Patterns(mm)



A=4.70±0.30m/m ; D=3.00m/m MAX; C=6.90m/m TYP. ; H=1.50m/m REF.

MARKING= Inductance value

### ●Specification

Part Number	L(uH)	Marking	DCR(Ω Max)	IDC(A)(Max)
TPRH4D28Q1-1R2□	1.2	1R2	0.0236	2.56
TPRH4D28Q1-1R8□	1.8	1R8	0.0275	2.20
TPRH4D28Q1-2R2□	2.2	2R2	0.0313	2.04
TPRH4D28Q1-2R7□	2.7	2R7	0.0433	1.60
TPRH4D28Q1-3R3□	3.3	3R3	0.0492	1.57
TPRH4D28Q1-3R9□	3.9	3R9	0.0648	1.44
TPRH4D28Q1-4R7□	4.7	4R7	0.0720	1.32
TPRH4D28Q1-5R6□	5.6	5R6	0.1009	1.17
TPRH4D28Q1-6R8□	6.8	6R8	0.1089	1.12
TPRH4D28Q1-8R2□	8.2	8R2	0.1175	1.04
TPRH4D28Q1-100□	10	100	0.1283	1.00
TPRH4D28Q1-120□	12	120	0.1316	0.84
TPRH4D28Q1-150□	15	150	0.1490	0.76
TPRH4D28Q1-180□	18	180	0.1660	0.72
TPRH4D28Q1-220□	22	220	0.2350	0.70
TPRH4D28Q1-270□	27	270	0.2610	0.58
TPRH4D28Q1-330□	33	330	0.3313	0.56

Part Number	L(uH)	Marking	DCR( $\Omega$ Max)	IDC(A)(Max)
TPRH4D28Q1-390□	39	390	0.3837	0.50
TPRH4D28Q1-470□	47	470	0.5870	0.48
TPRH4D28Q1-560□	56	560	0.6245	0.41
TPRH4D28Q1-680□	68	680	0.6990	0.35
TPRH4D28Q1-820□	82	820	0.9148	0.32
TPRH4D28Q1-101□	100	101	1.02	0.29
TPRH4D28Q1-121□	120	121	1.27	0.27
TPRH4D28Q1-151□	150	151	1.35	0.24
TPRH4D28Q1-181□	180	181	1.54	0.22

Note1. Measurement frequency of Inductance value : at 100KHz, 0.25V

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

Note3. IDC: The rated current indicates the current when the inductance decreases to 65% over of it's nominal value or D.C. current when the temperature rising  $\Delta t=40^{\circ}\text{C}$  lower, whichever is lower

Note4. Inductance tolerance: N:  $\pm 30\%$  ; M:  $\pm 20\%$

Note5. Ordering Code: TYPE NAME: TPRH4D28Q1

Main Inductance: 100 (10uH)

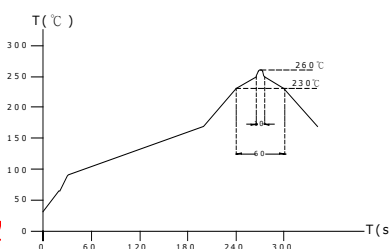
Tolerance : □ (see note 4)

Note6. Packaging: Taping ; Quantity: 2000 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

