

TPRH 5D18 TYPE

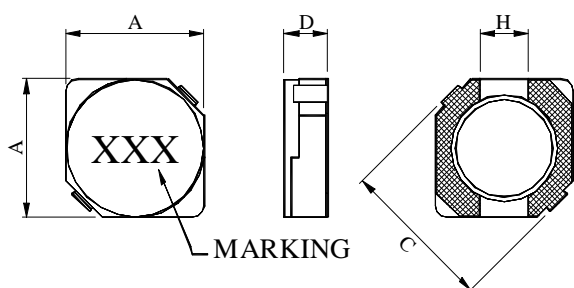
●FEATURE

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

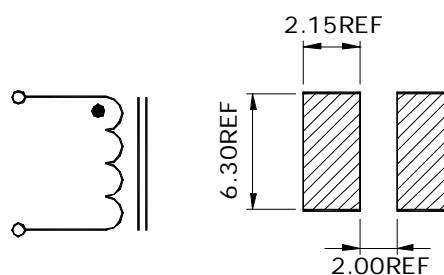
●Applications

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

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=5.70±0.30mm ; D=2.00mm MAX; C=8.20mm TYP. ; H=2.00mm REF.

MARKING= Inductance value

●Specification

Part Number	L(uH)	Marking	DCR(ΩMax)	IDC(A)(Max)
TPRH5D18-2R2□	2.2	2R2	0.052	2.20
TPRH5D18-3R3□	3.3	3R3	0.055	2.10
TPRH5D18-4R7□	4.7	4R7	0.068	1.65
TPRH5D18-6R2□	6.2	6R2	0.096	1.40
TPRH5D18-6R8□	6.8	6R8	0.110	1.30
TPRH5D18-8R2□	8.2	8R2	0.115	1.27
TPRH5D18-100□	10	100	0.124	1.20
TPRH5D18-120□	12	120	0.153	1.10
TPRH5D18-150□	15	150	0.196	0.97
TPRH5D18-180□	18	180	0.210	0.85
TPRH5D18-220□	22	220	0.290	0.80
TPRH5D18-270□	27	270	0.330	0.75
TPRH5D18-330□	33	330	0.386	0.65
TPRH5D18-390□	39	390	0.520	0.57
TPRH5D18-470□	47	470	0.595	0.54
TPRH5D18-560□	56	560	0.665	0.50
TPRH5D18-680□	68	680	0.840	0.43
TPRH5D18-820□	82	820	0.840	0.43

Part Number	L(uH)	Marking	DCR(Ω Max)	IDC(A)(Max)
TPRH5D18-101□	100	101	1.200	0.36

Note1. Measurement frequency of Inductance value : at 10KHz, 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 $\Delta t=30^{\circ}\text{C}$ lower, whichever is lower

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

Note5. Ordering Code: TYPE NAME: TPRH5D18

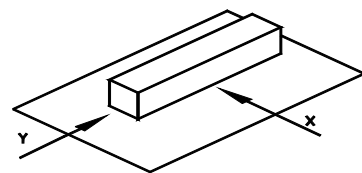
Main Inductance: 100 (10uH)

Tolerance : □ (see note 4)

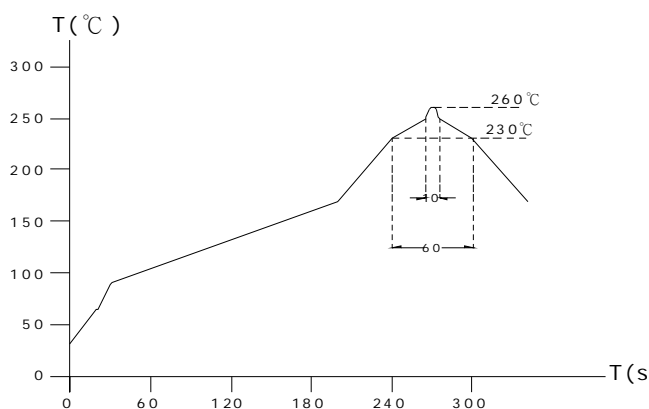
Note6.Packaging: Taping ; Quantity: 2000 Pieces/reel

GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO $+105^{\circ}\text{C}$ (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.
Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.
4. Insulating resistance: Over $100\text{M}\Omega$ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ ($-25\sim +80^{\circ}\text{C}$). , inductance deviation within $\pm 5.0\%$, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in $90\sim 95\%$ relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration ($10\sim 55\sim 10\text{ Hz}$) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s^2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C , 10 seconds(See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range: $10^{\circ}\text{C} \sim 35^{\circ}\text{C}$ (Generally: $21^{\circ}\text{C} \sim 31^{\circ}\text{C}$) , Humidity Range: $50\% \sim 80\% \text{ RH}$ (Generally: $65\% \sim 75\%$) ; Transportation condition: Temperature Range: $-35^{\circ}\text{C} \sim 85^{\circ}\text{C}$, Humidity Range: $50\% \sim 95\% \text{ RH}$
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test



Lead-free the recommended reflow condition

