

## TPRH 5D28R TYPE

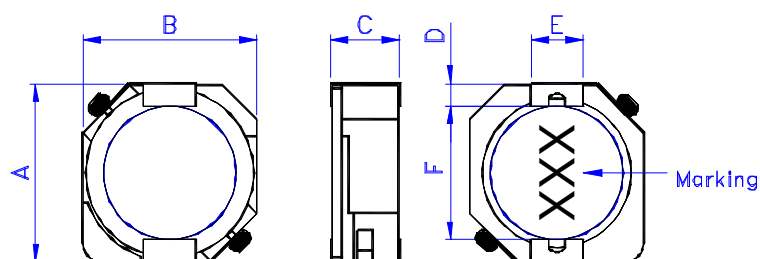
## ●FEATURE

1. High current capacity and Low DCR
2. Magnetic shielded for low radiation

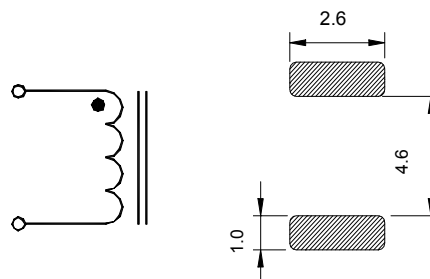
## ●Applications

1. Portable telephone, Personal Computer
2. Notebook, and other electronic equipment

## ●Shape and Dimension



## ●Schematics and Land Patterns(mm)



A=6.30mm MAX ; B=6.20mm MAX ; C=3.00mm MAX ; D=0.60mm REF. ;  
E=2.00mm REF ; F=4.70mm MAX

## ●Specification

| Part Number    | L(uH) | Marking | DCR(ΩMax) | Rated Current(A) |
|----------------|-------|---------|-----------|------------------|
| TPRH5D28R-2R5□ | 2.5   | 2R5     | 17.6m     | 2.60             |
| TPRH5D28R-3R3□ | 3.3   | 3R3     | 20.3m     | 2.30             |
| TPRH5D28R-4R0□ | 4.0   | 4R0     | 27.0m     | 2.10             |
| TPRH5D28R-4R7□ | 4.7   | 4R7     | 30m       | 1.95             |
| TPRH5D28R-5R0□ | 5.0   | 5R0     | 31.1m     | 1.85             |
| TPRH5D28R-6R0□ | 6.0   | 6R0     | 41.9m     | 1.70             |
| TPRH5D28R-8R0□ | 8.0   | 8R0     | 49.9m     | 1.50             |
| TPRH5D28R-100□ | 10    | 100     | 54.0m     | 1.30             |
| TPRH5D28R-120□ | 12    | 120     | 71.6m     | 1.20             |
| TPRH5D28R-150□ | 15    | 150     | 82.4m     | 1.10             |
| TPRH5D28R-180□ | 18    | 180     | 102m      | 1.05             |
| TPRH5D28R-220□ | 22    | 220     | 119m      | 0.95             |
| TPRH5D28R-270□ | 27    | 270     | 146m      | 0.85             |
| TPRH5D28R-330□ | 33    | 330     | 183m      | 0.76             |
| TPRH5D28R-390□ | 39    | 390     | 210m      | 0.68             |
| TPRH5D28R-470□ | 47    | 470     | 230m      | 0.60             |
| TPRH5D28R-560□ | 56    | 560     | 305m      | 0.55             |

| Part Number    | L(uH) | Marking | DCR( $\Omega$ Max) | Rated Current(A) |
|----------------|-------|---------|--------------------|------------------|
| TPRH5D28R-680□ | 68    | 680     | 351m               | 0.48             |
| TPRH5D28R-820□ | 82    | 820     | 419m               | 0.45             |
| TPRH5D28R-101□ | 100   | 101     | 520m               | 0.40             |

Note1. Measurement frequency of Inductance value : at 100KHz, 0.1V

Note2. Measurement ambient temperature of L, DCR and IDC : at 20°C

Note3. Rated Current: 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( $T_a=20^{\circ}\text{C}$ )

Note4. Part no identification: TYPE NAME: TPRH5D28R

INDUCTANCE: 100(10uH)

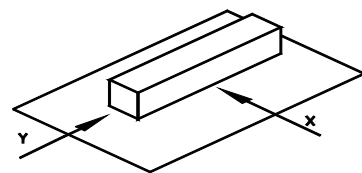
TOLERANCE: N ( $\pm 30\%$ )

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

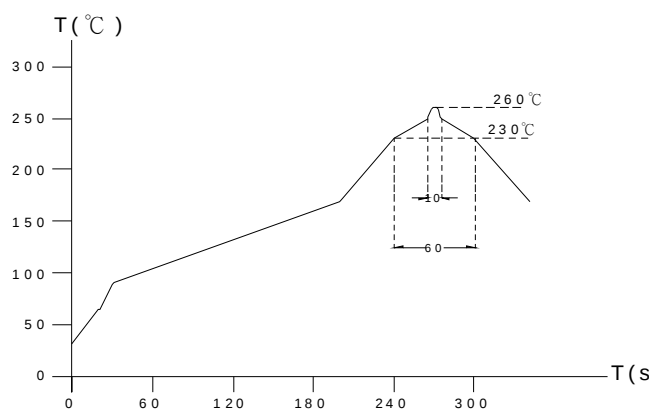
Note6. Packaging: Taping ; Quantity: 1500PCS/REEL

## GENERAL CHARACTERISTICS

1. Operating temperature range:  $-40^{\circ}\text{C}$  TO  $+85^{\circ}\text{C}$  (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has 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  $100\text{V D.C.}$  between coil and core.
5. Dielectric strength: No dielectric breakdown at  $100\text{V D.C.}$  for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  ( $-25\sim +80^{\circ}\text{C}$ ).
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  $1.5\text{mm P-P}$  amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  ( $100\text{G}$ ) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat:  $260^{\circ}\text{C}$ , 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 6 months. If 6 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test



Lead-free the recommended reflow condition

