SMD Power Inductor
size TCDRH129

## 1.Features

- High power ,Low DCR, high saturation .
- Magnetic shielded structure， Halogen free, lead free, RoHS compliant.
- Suitable for SMT process Operating temperature -40 ～+125 .

## 2. Applications

Notebook,Server,audio,netcom,
security,mobile phone,
smart home.

TCDRH 6D 38 T 125 NP - 6R8 N C
① ② ③④ ⑤ ⑥ ⑦ ⑧⑨

① Type name 形名

Dimensions 外形尺寸

Height (H) 高度尺寸

Characteristic 特性规格
L(D) Low DCR.Type低DCR类型
H(P) High Sturation Current Type高饱和电流类型
None or T Sundard Tye标准类型

Operation Temperature 使用温度

None sandnrd Tpre 标准品

125 The upperlimit ofoperatfon temperature is+125 ° (Including cols selftemperature rise)
使用温度上限+125C(包含线圈发热)

150 The upperlimit ofoperaton temperature is+150 ° (Inctuding cois selftemperature rise)
使用温度上限+150C(包含线圈发热)

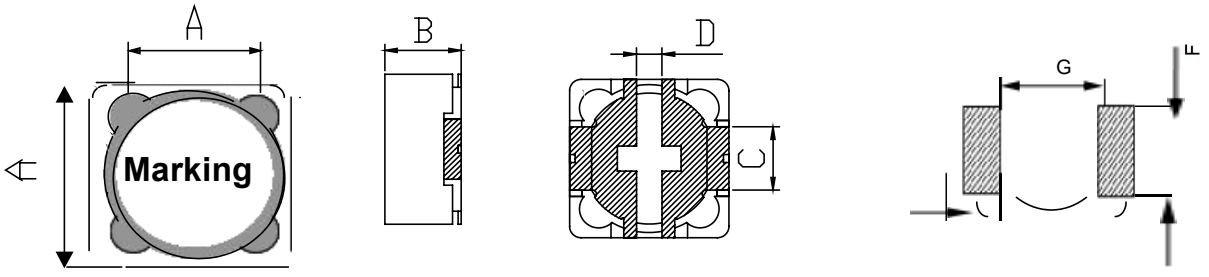
⑥Feature 分类
Lead-free NP无铅
Halogen-free 无卤素

Induetance 电感值
1R0 1.0uH 100 10uH 101 100uH

Tolerance of inductance 电感值公差
K ±10% M ±20% N ±30%

Packing 据包规格
C 载带Carier tape B 箱子 Box

EXTERNALDIMENSIONS (Unit:mm)



| TYPE | A (Max) | B (Max) | C (Ref.) | D (Ref.) | E | F | G |
|---|---|---|---|---|---|---|---|
| TCDRH7D45R | 7.8 | 4.5 | 2.7 | 1.2 | 1.6 | 3.1 | 4.0 |
| TCDRH10D43R | 10.5 | 5.0 | 4.6 | 1.6 | 2.3 | 5.0 | 6.6 |
| TCDRH124 | 12.5 | 5.0 | 5.0 | 1.9 | 2.8 | 5.4 | 7.0 |
| TCDRH125 | 12.5 | 6.0 | 5.0 | 1.9 | 2.8 | 5.4 | 7.0 |
| TCDRH12D78E/LD | 12.5 | 8.0 | 5.0 | 1.9 | 2.8 | 5.4 | 7.0 |
| TCDRH129 | 12.5 | 10.5 | 5.0 | 1.9 | 2.8 | 5.4 | 7.0 |

ElectricalProperties:

| Part No | Inductance ( μH) | D.C.R.(mΩ) Max.(Typ.)at 25℃ | IDC (Max) (A) |
|---|---|---|---|
| TCDRH129HF-4R7MC | 4.7±20% | 0.018 | 9.50 |
| TCDRH129HF-6R8MC | 6.8±20% | 0.023 | 9.00 |
| TCDRH129HF-100MC | 10±20% | 0.03 | 6.00 |
| TCDRH129HF-150MC | 15±20% | 0.035 | 5.50 |
| TCDRH129HF-220MC | 22±20% | 0.053 | 5.00 |
| TCDRH129HF-330MC | 33±20% | 0.07 | 4.50 |
| TCDRH129HF-470MC | 47±20% | 0.12 | 4.00 |
| TCDRH129HF-680MC | 68±20% | 0.145 | 3.00 |
| TCDRH129HF-101MC | 100±20% | 0.18 | 2.50 |
| TCDRH129HF-151MC | 150±20% | 0.31 | 2.00 |
| TCDRH129HF-221MC | 220±20% | 0.35 | 1.80 |
| TCDRH129HF-331MC | 330±20% | 0.48 | 1.60 |
| TCDRH129HF-471MC | 470±20% | 0.95 | 1.50 |
| TCDRH129HF-561MC | 560±20% | 1.20 | 1.40 |
| TCDRH129HF-821MC | 820±20% | 1.40 | 1.00 |
| TCDRH129HF-102MC | 1000±20% | 1.56 | 0.80 |
| TCDRH129HF-152MC | 1500±20% | 1.80 | 0.60 |

■ All data is tested based on 25℃ ambient temperature.

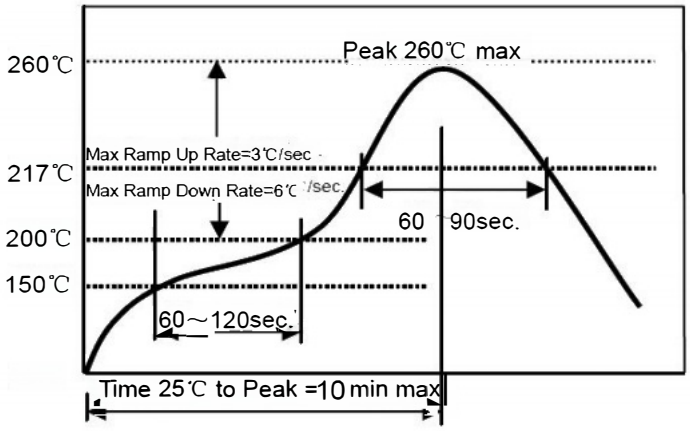
1 Inductance measure condition at 100kHz, 0.1V.

2 Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.

3 Temperature rise current :the actual value of DC current when the temperature rise is△T40℃(Ta=25℃)

· Special remind:Circuit design,component placement,PCB size and thickness,cooling system and etc.all will affect the product temperature.Please verify the product temperature in the final application.

Reflow Profile for SMT Components




## Re-flowing Profile

Preheat condition: 150 ~200℃/60~120sec

Allowed time above 217℃: 80~90sec.

Max temp: 260℃

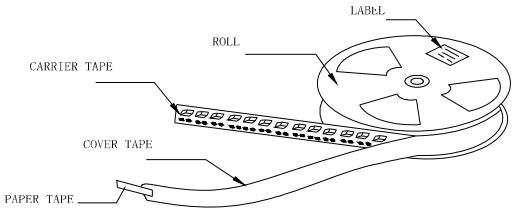
Max time at max temp: 5 sec.

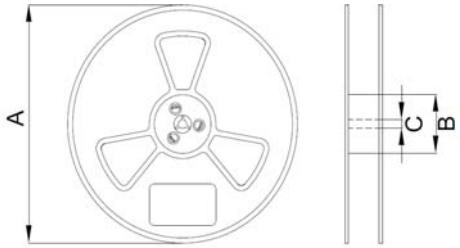
Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x

Reflow is reiened tostandad IPCJJEDECJSTD02OD.

Remark:
- All test data is reference to 25℃ ambient.
- Test Condition: 1MHz, 0.1Vrms
- Isat:Max.Value,DC current at which the inductance drops less than 30%from its value without current;
- Typ.Value,DC current at which the inductance drops 30%from its value without current.
- Irms: For Max.Value, △T<40℃: for Typ.Value,△T is approximate 40℃.
- Operat between temperature range-40℃to+125℃(Including self-temperature rise)
- Absolute maximum voltage:DC 70V




| ProductSerie | Quantity Reel | InnerCartonQuantity |
|---|---|---|
| TCDRH129 | 300 | (300×2)=600pcs |

| Type | Reel Dimension (mm) | | | Quantity (Pcs/Reel) |
|---|---|---|---|---|
| | A | B | C | |
| TCDRH7D45R | 330 | 100 | 13 | 1000 |
| TCDRH10D43R | 330 | 100 | 13 | 750 |
| TCDRH124 | 330 | 100 | 13 | 800 |
| TCDRH125 | 330 | 100 | 13 | 500 |
| TCDRH12D78E/LD | 330 | 100 | 13 | 500 |
| TCDRH129 | 330 | 100 | 13 | 300 |