

SMD Power Inductor size TCDRH8D43HP

1.Features

- Low profile ,magnetic shielding design.
- Suitable for SMT process Operating temperature $-40 \sim +125$.
- Halogen free, lead free, RoHS compliant.

2. Applications

Used in Notebook,Server,audio,security ,mobilephone,smart home. communication equipment, and etc.

TCDRH 6D 38 I 125 NP -6R8 N C

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Type name

Dimensions

Height (H)

Characteristic

L(D)	Low DCR.Type
H(P)	High Sturation Current Type
None or T	Sundard Tye

Operation Temperature

None Sandnrd Tpre

125 The upperlimit ofoperatfon temperature is+125 ° (Including cols selftemperature rise)

150 The upperlimit ofoperatonemperatureis+150 C (Inctuding cois selftemperature rise)

⑥Feature Lead-free NP

Halogen-free

⑦Induetance

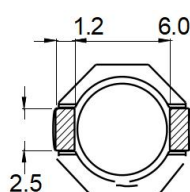
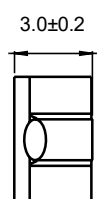
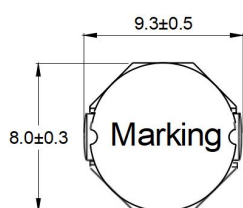
1R0 1.0uH 100 10uH 101 100uH

⑧Tolerance of inductance

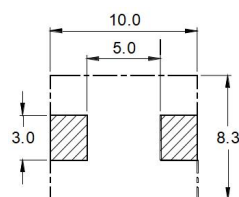
K $\pm 10\%$ M $\pm 20\%$ N $\pm 30\%$

Packing C: Carier tape B: Box

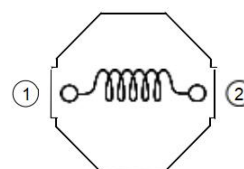
EXTERNALDIMENSIONS (Unit:mm)



Reference land pattern (mm)



Schematic



Electrical Properties:

Part No	Inductance (μ H)	D.C.R.(m Ω) Max.(Typ.) at 25°C	Isat (A)*A Max.(Typ.) at 25°C	Irms(A)*B Max.(Typ.)
TCDRH8D43HP-1R0NC	1.00 ($\pm$ 30%)	8.52 (7.1)	11.0	7.00
TCDRH8D43HP-2R2NC	2.20 ($\pm$ 30%)	13.0 (10.8)	7.50	5.67
TCDRH8D43HP-3R3NC	3.30 ($\pm$ 30%)	15.4 (12.8)	7.00	5.21
TCDRH8D43HP-4R7NC	4.70 ($\pm$ 30%)	27.6 (23.0)	5.40	3.89
TCDRH8D43HP-6R8NC	6.80 ($\pm$ 30%)	26.0 (31.2)	4.80	3.66
TCDRH8D43HP-8R2NC	8.20 ($\pm$ 30%)	39.6 (33.0)	4.40	3.24
TCDRH8D43HP-100MC	10.0 ($\pm$ 20%)	52.8 (44.0)	3.70	2.81
TCDRH8D43HP-150MC	15.0 ($\pm$ 20%)	66.0 (55.0)	3.20	2.51
TCDRH8D43HP-220MC	22.0 ($\pm$ 20%)	113 (94.0)	2.60	1.92
TCDRH8D43HP-330MC	33.0 ($\pm$ 20%)	139 (116)	2.15	1.73
TCDRH8D43HP-470MC	47.0 ($\pm$ 20%)	198 (165)	1.80	1.45
TCDRH8D43HP-680MC	68.0 ($\pm$ 20%)	319 (266)	1.45	1.14
TCDRH8D43HP-820MC	82.0 ($\pm$ 20%)	353 (294)	1.32	1.09
TCDRH8D43HP-101MC	100 ($\pm$ 20%)	462 (385)	1.23	0.95
TCDRH8D43HP-151MC	150 ($\pm$ 20%)	732 (610)	0.97	0.75
TCDRH8D43HP-221MC	220 ($\pm$ 20%)	978 (815)	0.83	0.65
TCDRH8D43HP-331MC	330 ($\pm$ 20%)	1416 (1180)	0.66	0.54
TCDRH8D43HP-471MC	470 ($\pm$ 20%)	2208 (1840)	0.56	0.43
TCDRH8D43HP-681MC	680 ($\pm$ 20%)	3192 (2660)	0.47	0.36
TCDRH8D43HP-821MC	820 ($\pm$ 20%)	3492 (2910)	0.43	0.35
TCDRH8D43HP-102MC	1000 ($\pm$ 20%)	4800 (4000)	0.38	0.29

■ All data is tested based on 25°C ambient temperature.

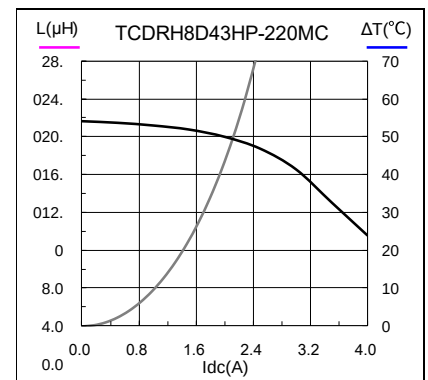
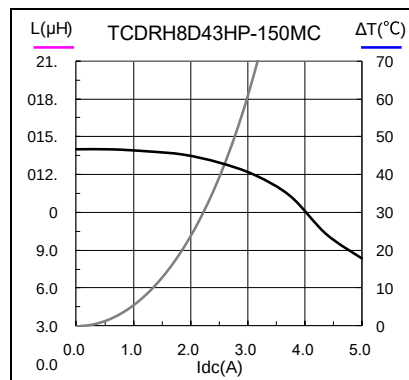
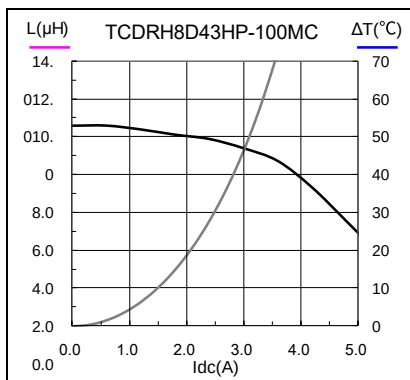
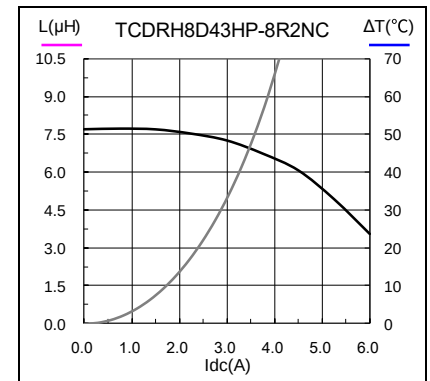
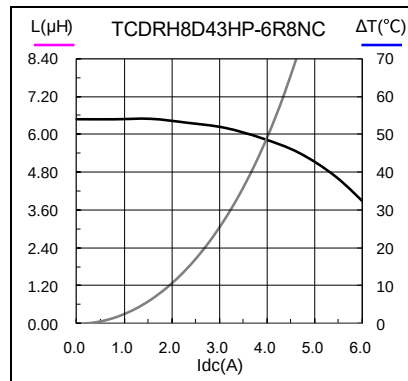
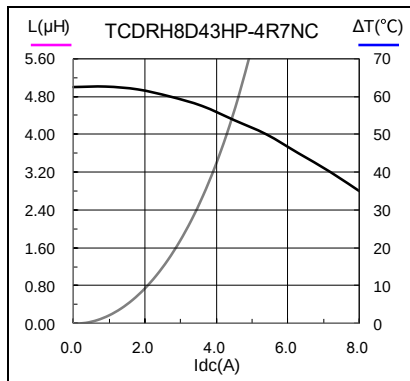
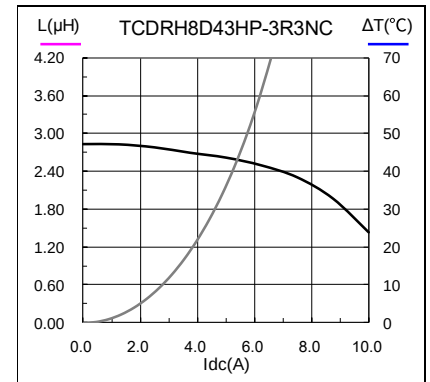
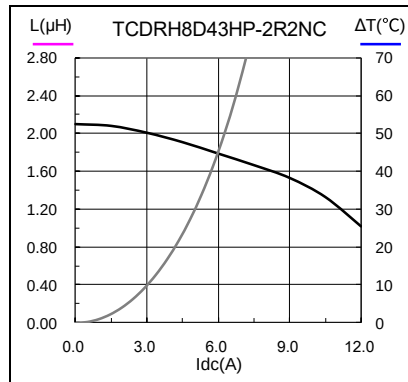
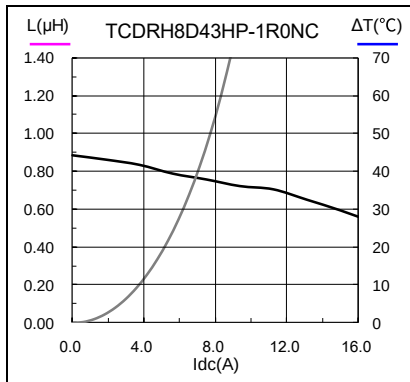
1 Inductance measure condition at 100kHz, 0.1V.

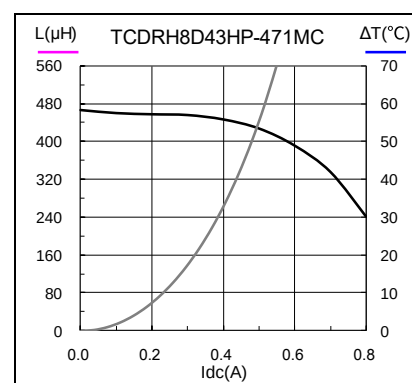
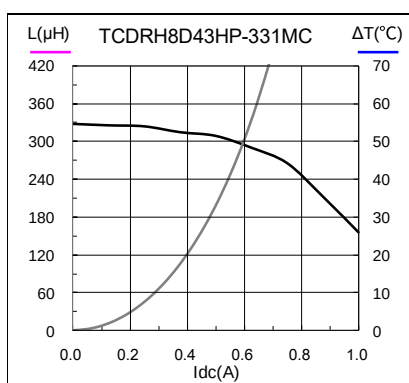
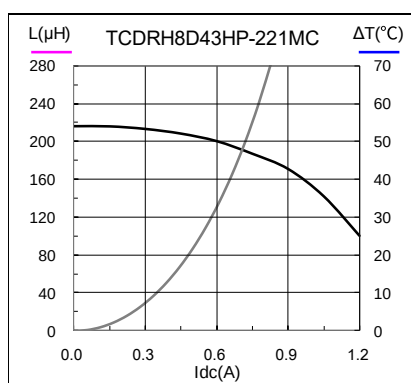
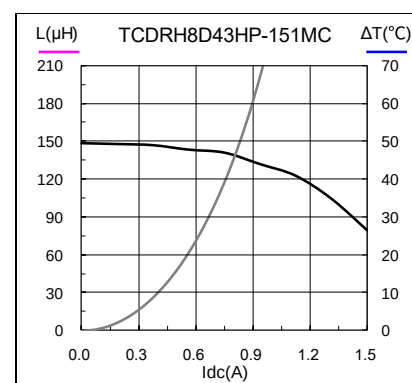
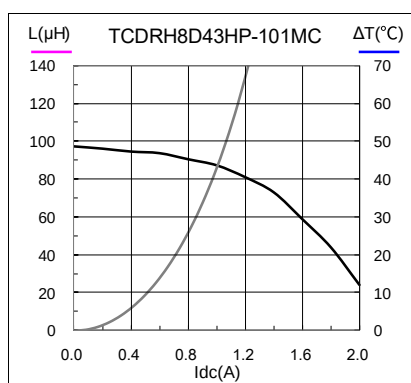
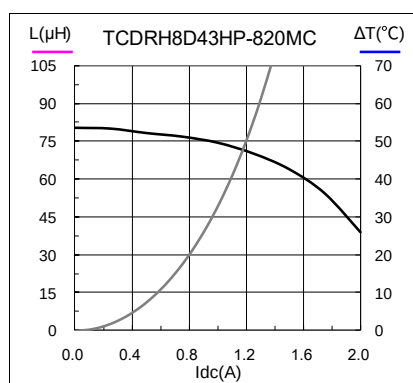
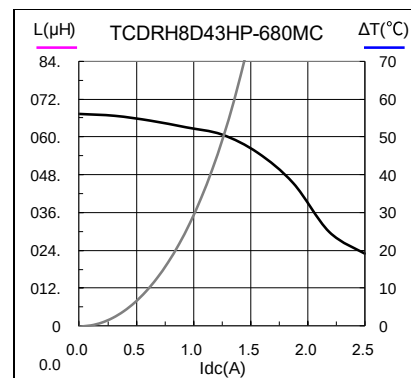
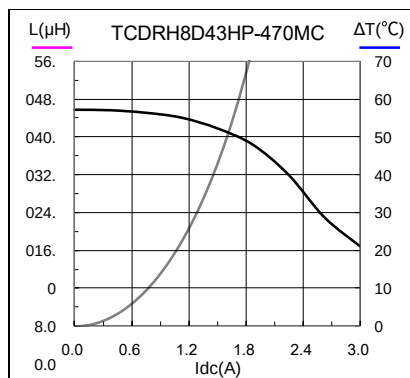
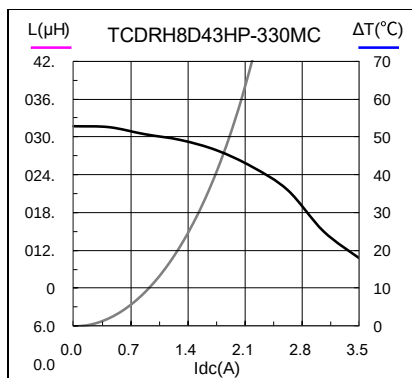
2 Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.

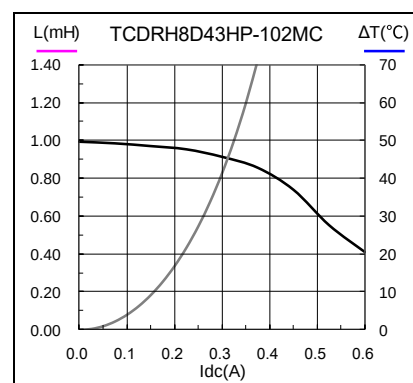
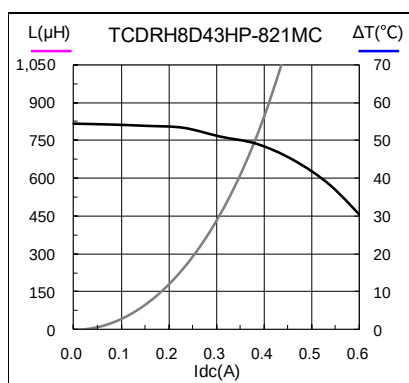
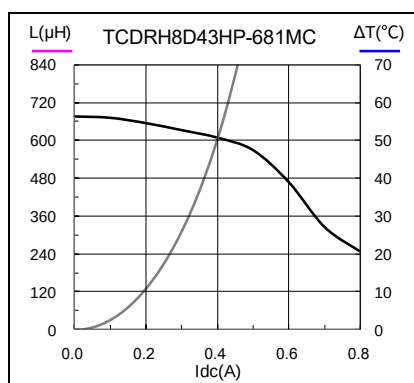
3 Temperature rise current :the actual value of DC current when the temperature rise is $\Delta T 40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$)

· 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.

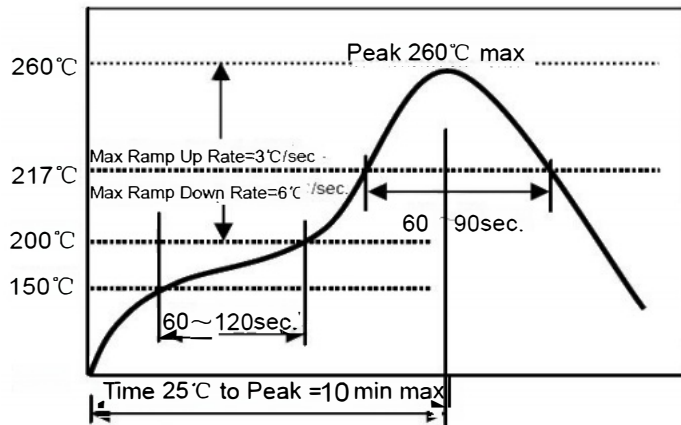
Saturation current VS temperature rise current curve







Reflow Profile for SMT Components



Re-flowing Profile

Preheat condition: 150 ~ 200°C/60~120sec

Allowed time above 217°C: 80~90sec.

Max temp: 260°C

Max time at max temp: 5 sec.

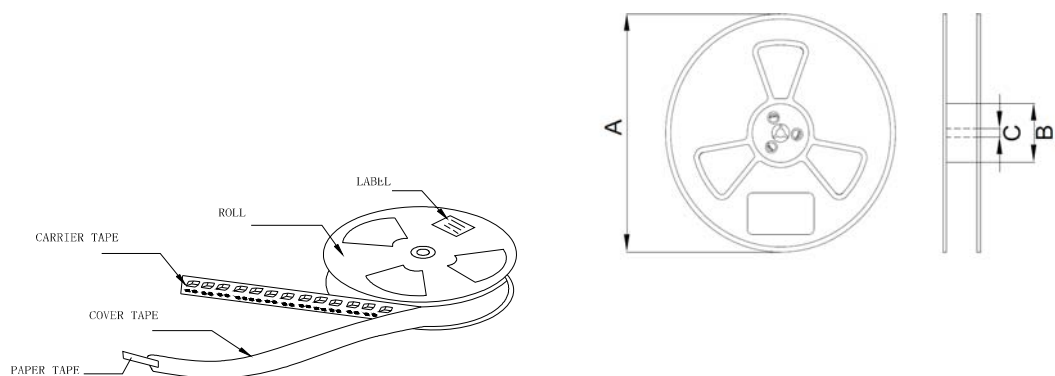
Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x

Reflow is reiened tostandad IPCJJEDECJSTD020D.

回流焊参 照标准IPCJJEDECJSTD020D

- Remark:
- All test data is reference to 25°C 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, $\Delta T < 40^\circ\text{C}$: for Typ.Value, ΔT is approximate 40°C.
 - Operat between temperature range-40°C to +125°C (Including self-temperature rise)
 - Absolute maximum voltage:DC 70V



ProductSerie	Quantity Reel	InnerCartonQuantity
CDRH8D43HP	1000PCS	(1000×2)=2000pcs

Type	Reel Dimension (mm)			Quantity (Pcs/Reel)
	A	B	C	
CDRH8D28HP	330	100	13	1500
CDRH8D43HP	330	100	13	1000