

One-piece molding powerinductor size CCY1050AT125DS

1.Features

- Qualified to AEC Q200
 - Small volume,large current,in high frequency and high temperature environment to maintain, excellent temperature current and saturation current characteristics.
 - Low loss alloy powder die casing,low resistance,Firm structrue
- Operating temperature : -55℃ ~ +150℃ (Including coil ' s temperature rise)

2. Applications

ADAS, Infotainment

LED lighting,Internet of vehicle.

Automotive series of electronic equipment

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

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

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 upper limit of operation temperature is +125 (Including coils self temperature rise)

使用温度上限+125C(包含线圈发热)

150 The upper limit of operation temperature is+150 (Inctuding cois selftemperature rise)

使用温度上限+150C(包含线圈发热)

Feature 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%

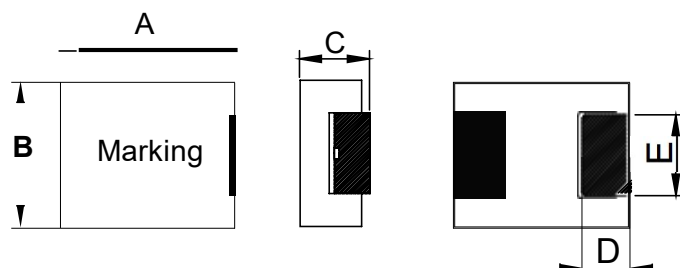
Packing 据包规格

C 载带Carrier tape

B 箱子 Box

Externaldimensions

Unit:(mm)



SERIES	A	B	C	D	E
CCY0420AT125/DS	4.4±0.4	4.2±0.2	1.8±0.2	0.8±0.2	2.0±0.3
CCY0530AT125/DS	5.6±0.4	5.2±0.2	2.8±0.2	1.3±0.3	2.3±0.3
CCY0630AT125/DS	7.0±0.3	6.6±0.2	2.8±0.2	1.6±0.3	3.0±0.3
CCY0650AT125/DS	7.0±0.3	6.6±0.2	4.8±0.2	1.6±0.3	3.0±0.3
CCY1040AT125/DS	11.0±0.5	10.0±0.3	3.8±0.2	2.5±0.5	3.0±0.5
CCY1050AT125/DS	11.0±0.5	10.0±0.3	5.2±0.2	2.2±0.5	4.5±0.3
CCY1250AT125/DS	13.5±0.5	12.6±0.3	4.8±0.2	2.0±0.5	5.0±0.5
CCY1260AT125/DS	13.5±0.5	12.6±0.3	6.2±0.2	2.0±0.5	5.0±0.5
CCY1770AT125/DS	17.2±0.5	17.0±0.3	6.8±0.2	2.5±0.5	12.0±0.3

Electrical Properties:

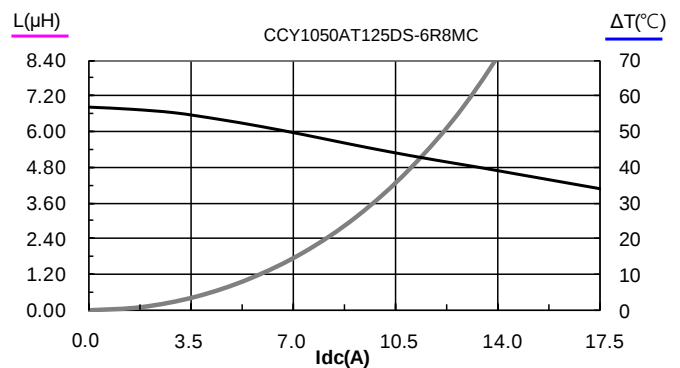
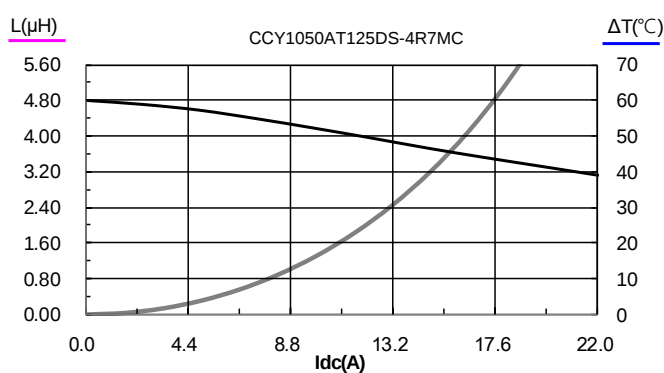
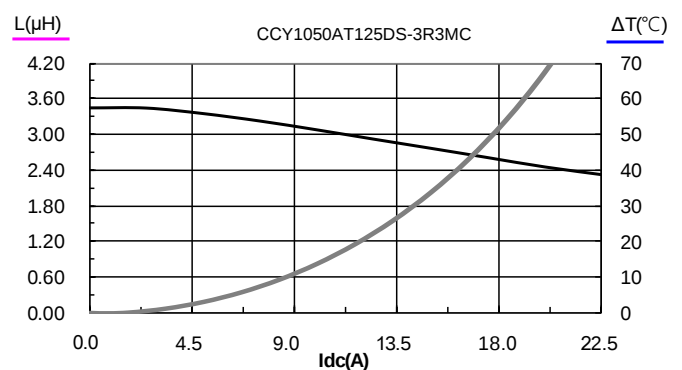
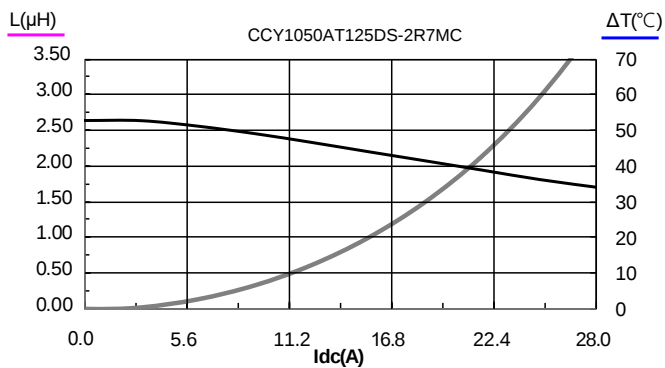
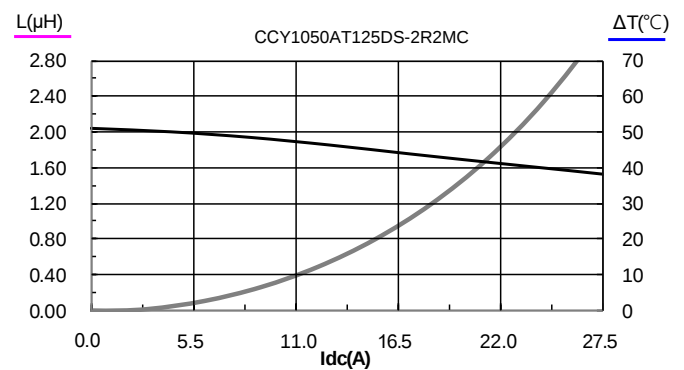
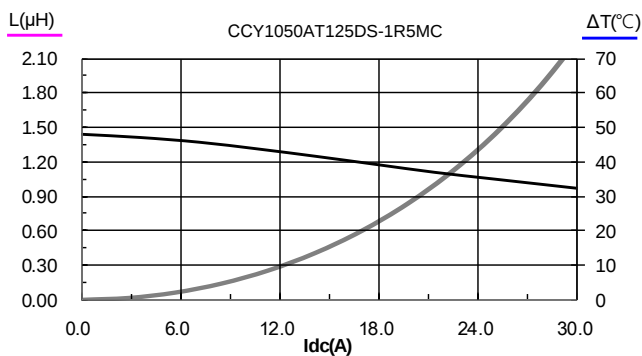
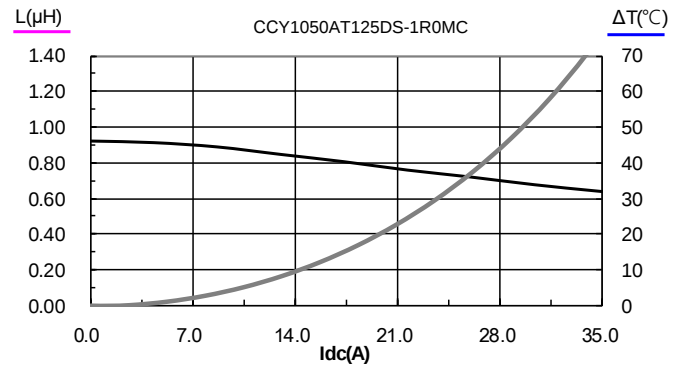
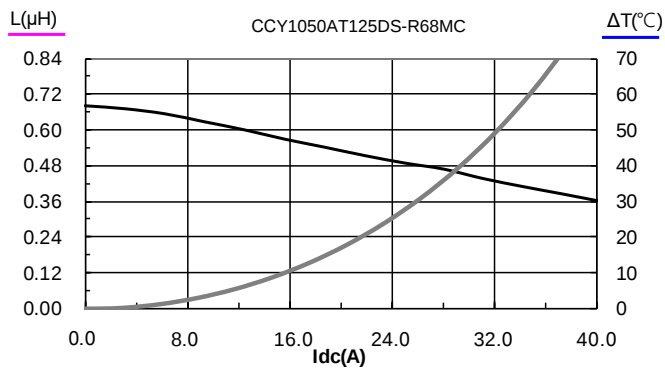
Part No.	Inductance (uH)	DCR (mΩ) @25℃		Saturation Current DC Amps. Isat(A)		HeatRating Current DC Amps.Irms(A)	
		Typ.	Max.	Max.	Typ.	Max.	Typ.
CCY1050AT125DS-R68MC	0.68±20%	1.85	2.22	31.00	36.0	28.8	32.0
CCY1050AT125DS-1R0MC	1±20%	2.3	2.8	25.0	28.0	27.0	30.0
CCY1050AT125DS-1R5MC	1.5±20%	3.6	4.0	23.0	27.0	22.0	24.0
CCY1050AT125DS-2R2MC	2.2±20%	4.1	4.9	18.0	22.0	21.0	23.0
CCY1050AT125DS-2R7MC	2.7±20%	5.2	6.8	19.0	22.0	19.0	21.0
CCY1050AT125DS-3R3MC	3.3±20%	6.5	7.4	18.0	20.0	14.0	16.0
CCY1050AT125DS-4R7MC	4.7±20%	8.3	10.0	16.0	18.0	13.0	14.5
CCY1050AT125DS-6R8MC	6.8±20%	12.0	15.0	12.0	14.0	10.8	12.0
CCY1050AT125DS-100MC	10±20%	21.0	26.0	11.0	13.0	7.8	8.7
CCY1050AT125DS-150MC	15±20%	26.0	31.0	8.0	9.2	7.0	7.6
CCY1050AT125DS-220MC	22±20%	45.0	53.0	6.5	7.5	5.4	6.0
CCY1050AT125DS-330MC	33±20%	66.0	78.0	5.0	6.0	4.3	4.8
CCY1050AT125DS-470MC	47±20%	88.0	103.0	4.0	5.0	3.6	4.1

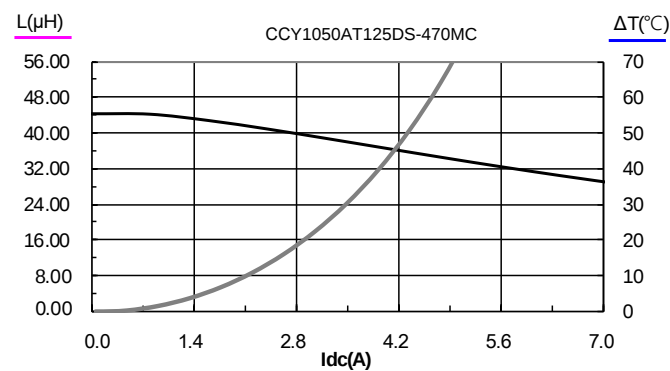
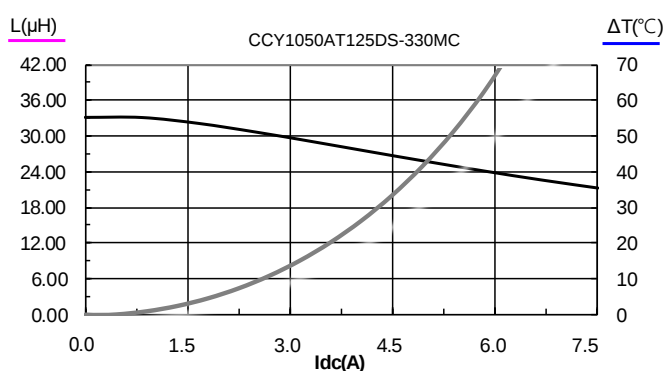
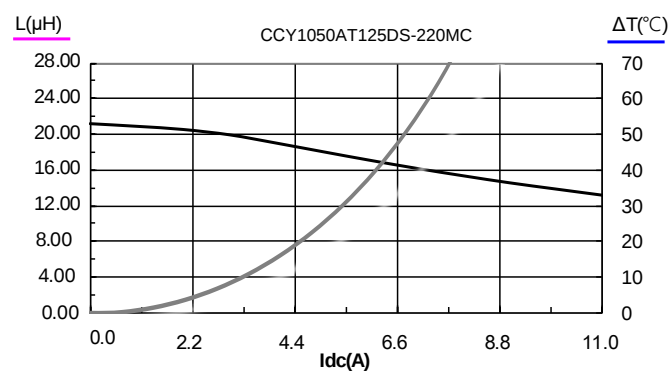
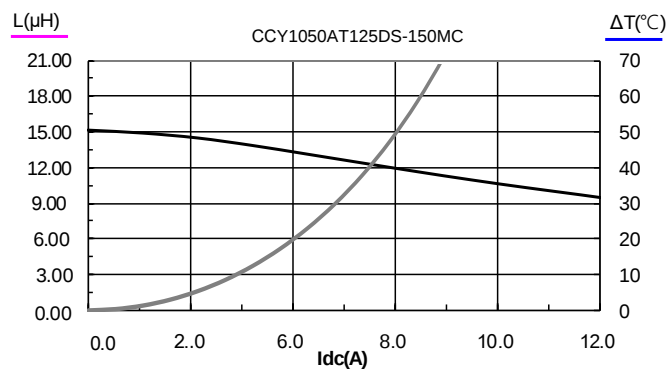
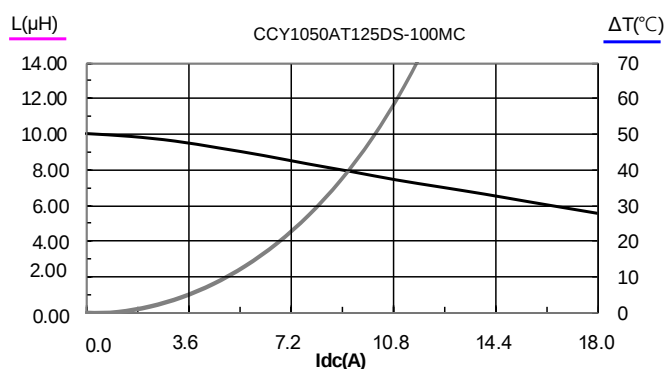
- All data is tested based on 25℃ ambient temperature.

- 1 Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.
- 2 Temperature rise current :the actual value of DC current when the temperature rise is $\Delta T 40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).
- 3 Inductance measure condition at 100kHz, 0.1V.

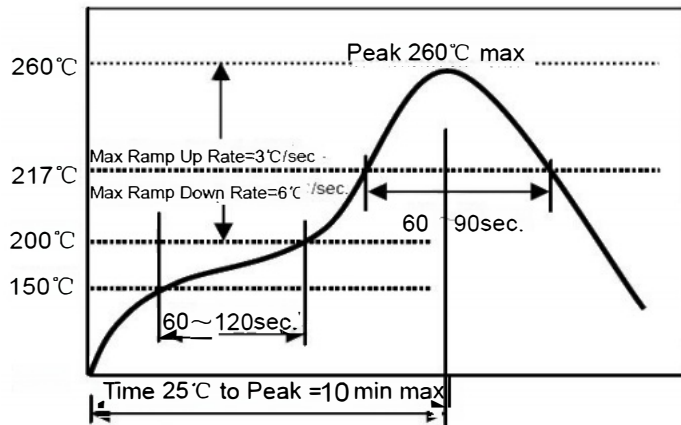
Special remind:Circuit design,component placement,PCB size and thickness,cooling system and etc.all will affect the product temperature.Please verify the product temperature in the final application.

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

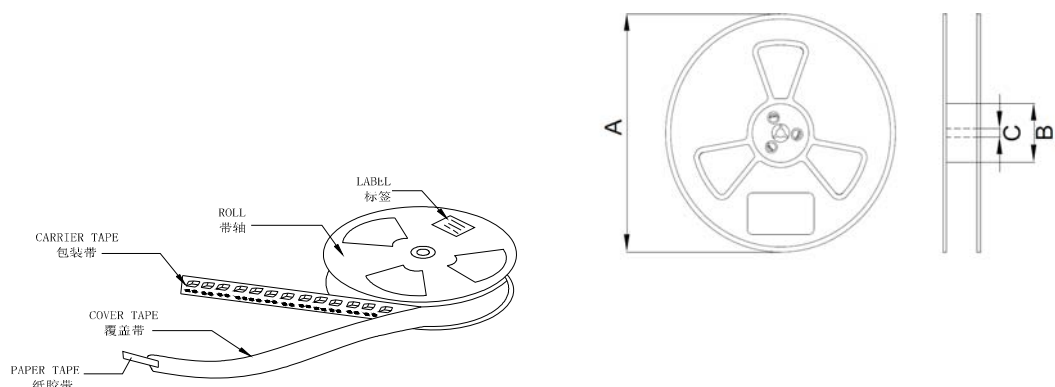
Max time at max temp: 5 sec.

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x

Reflow is reiened tostandad
 IPCJJEDECJSTD02OD.

- 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-55°C to+150°C (Including self-temperature rise)
 - Absolute maximum voltage:DC 75V



Product Serie	Quantity Reel	InnerCarton Quantity
CCY1050AT125/DS	1000pcs	(2000×2)=4000pcs

Type	Reel Dimension (mm)			Quantity (Pcs/Reel)
	A	B	C	
CCY0420AT125/DS	330	100	13	3000
CCY0530AT125/DS	330	100	13	2000
CCY0630AT125/DS	330	100	13	2000
CCY0650AT125/DS	330	100	13	1500
CCY1040AT125/DS	330	100	13	1000
CCY1050AT125/DS	330	100	13	1000
CCY1250AT125/DS	330	100	13	400
CCY1260AT125/DS	330	100	13	400
CCY1770AT125/DS	330	100	13	300