

SMD Power Inductor

CY0530AT125/DS



Description

- Metal alloy
- Magnetically shielded
- LxWxH:5.8x5.5x3.1mm Max.
- Absolute maximum voltage (across inductor): 50V
- Product weight:0.42 g (Ref.)
- Moisture Sensitivity Level: 1
- AEC-Q200 qualified



Environmental Data

- Operating temperature range: -40°C~+125°C (including coil's self temperature rise)

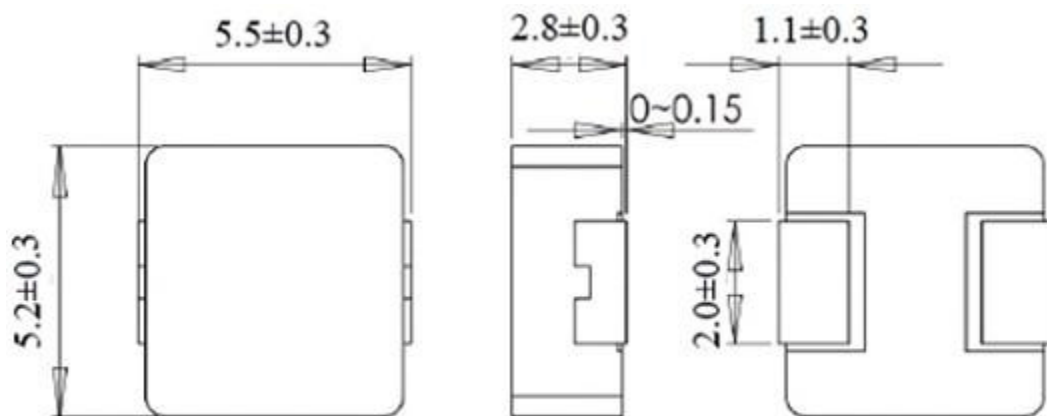
Packaging

- Carrier tape and reel packaging
- 2000pcs per reel

Applications

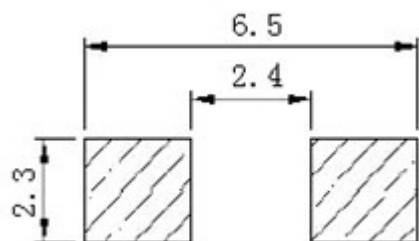
- Suitable for DC/DC converter on ECU and LED head light, the other high reliability environment for automotive application

Dimension - [mm]

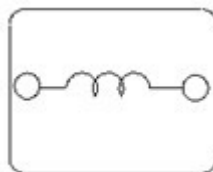


* Dimension without tolerance is reference value.

Recommended Land pattern - [mm]



Wire Connection



SMD Power Inductor

CY0530AT125/DS



Electrical Characteristics

Part Number	Inductance [Within] (μ H) ※1	D.C.R. at 20°C Max.(Typ.) (m Ω)	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
CY0530AT125DS-R47MCY	0.47 \pm 20%	7.50 (6.50)	12.00 (15.00)	9.50 (10.80)
CY0530AT125DS-R68MCY	0.68 \pm 20%	9.00 (7.80)	10.80 (13.50)	8.20 (9.50)
CY0530AT125DS-1R0MCY	1.00 \pm 20%	14.00 (12.00)	8.30 (10.40)	7.20 (8.00)
CY0530AT125DS-1R5MCY	1.50 \pm 20%	15.00 (13.00)	7.80 (9.80)	6.40 (7.10)
CY0530AT125DS-2R2MCY	2.20 \pm 20%	17.30 (15.00)	6.70 (8.40)	6.00 (6.80)
CY0530AT125DS-3R3MCY	3.30 \pm 20%	31.00 (27.00)	5.60 (7.00)	4.50 (5.20)
CY0530AT125DS-4R7MCY	4.70 \pm 20%	40.30 (35.00)	4.30 (5.40)	4.30 (4.90)
CY0530AT125DS-6R8MCY	6.80 \pm 20%	63.30 (55.00)	4.10 (5.20)	3.40 (3.80)
CY0530AT125DS-100MCY	10.00 \pm 20%	98.00 (85.00)	3.50 (4.40)	2.80 (3.20)
CY0530AT125DS-150MCY	15.00 \pm 20%	168 (145)	2.40 (3.00)	1.90 (2.20)
CY0530AT125DS-220MCY	22.00 \pm 20%	270 (235)	2.00 (2.50)	1.60 (1.80)

※1 Measuring frequency Inductance at 100kHz, 0.25V

※2 Saturation current: This indicates the value of DC current when the inductance becomes 30% lower than its initial value.

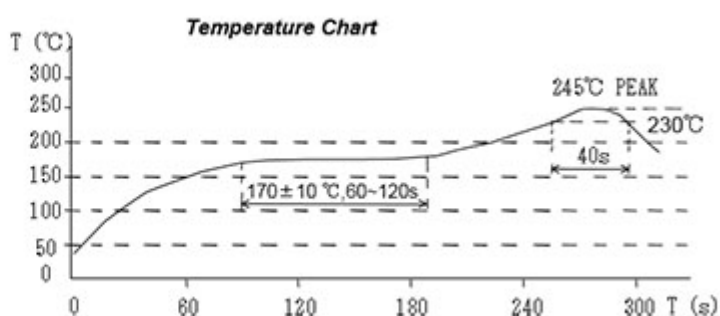
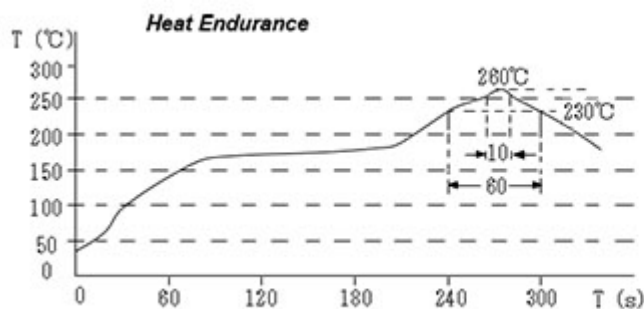
※3 Temperature rise current: The value of DC current when the temperature of coil becomes $\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).

※ The allowable current shall be defined smaller value of either the saturation current or the temperature rise current, when being generated DC current.

※ Within a suitable application, the part temperature depends on circuit design and certain heat dissipation conditions. This should be checked in a worst case operation mode. In normal case, the max standard operating temperature of $+125^{\circ}\text{C}$ should not be exceeded.

※ Absolute maximum voltage(across inductor): 50V

Solder Reflow Condition



SMD Power Inductor

CY0530AT125/DS



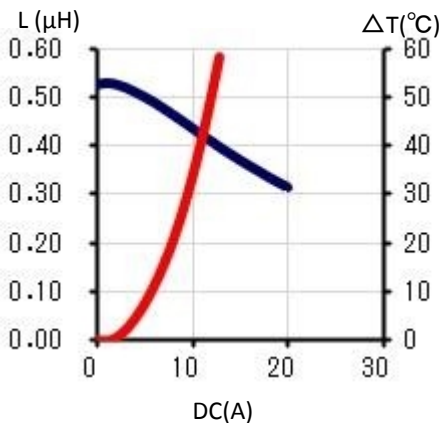
Recommended Type

Saturation Current & Temperature Rise Graph

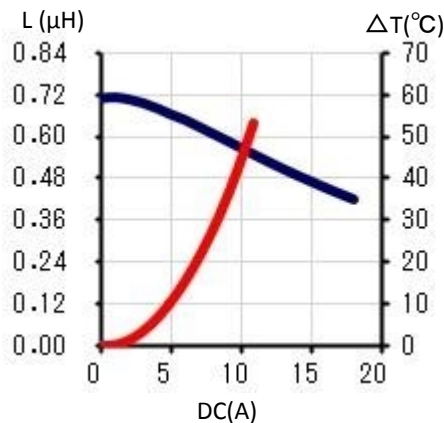
— L (25°C)

— ΔT

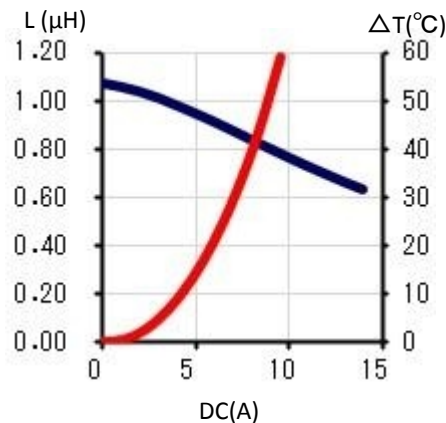
1. CY0530AT125DS-R47MCY



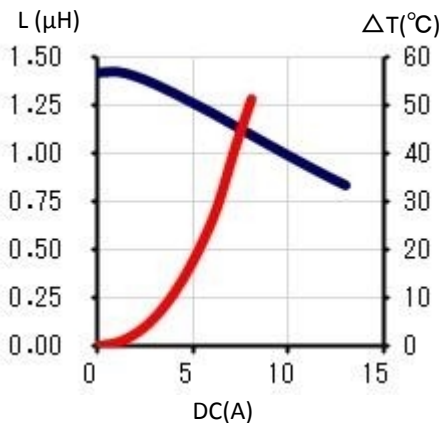
2. CY0530AT125DS-R68MCY



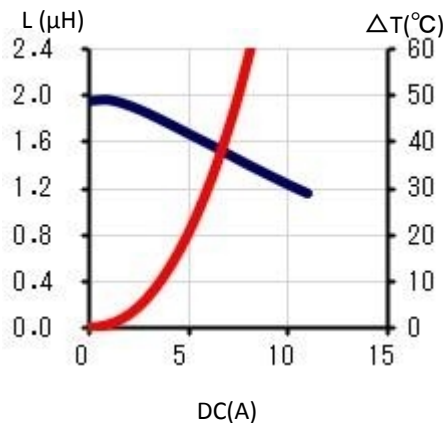
3. CY0530AT125DS-1R0MCY



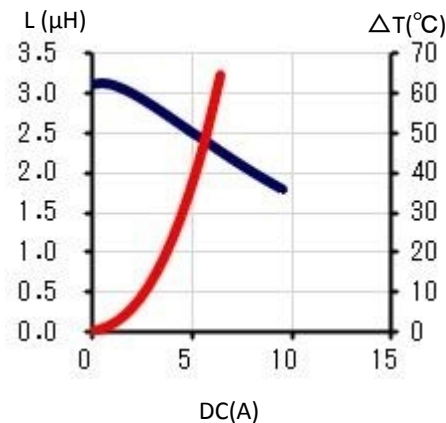
4. CY0530AT125DS-1R5MCY



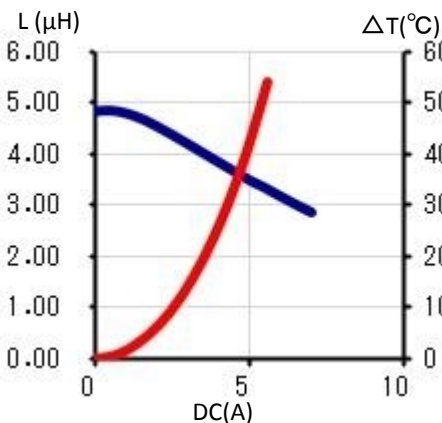
5. CY0530AT125DS-2R2MCY



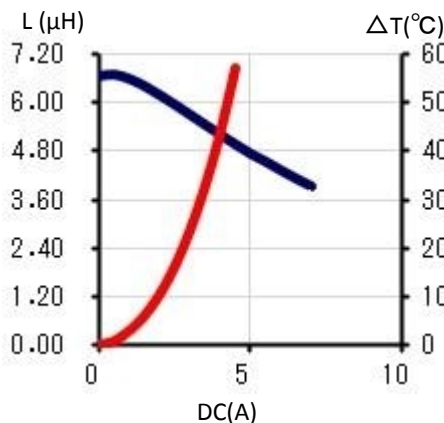
6. CY0530AT125DS-3R3MCY



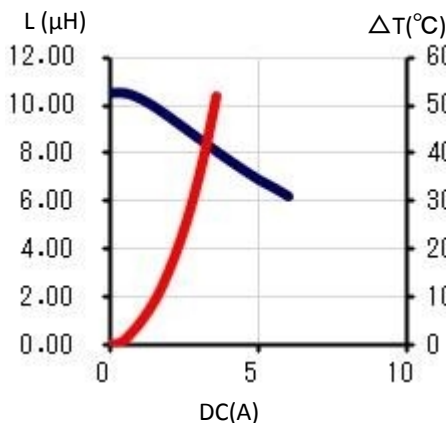
7. CY0530AT125DS-4R7MCY



8. CY0530AT125DS-6R8MCY



9. CY0530AT125DS-100MCY



Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

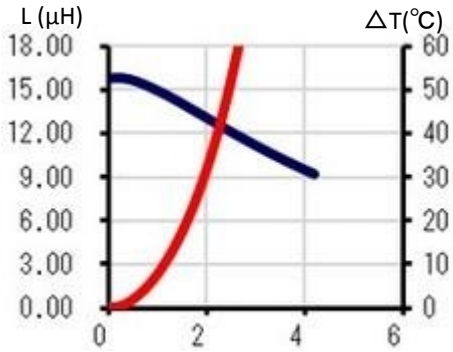
CY0530AT125/DS



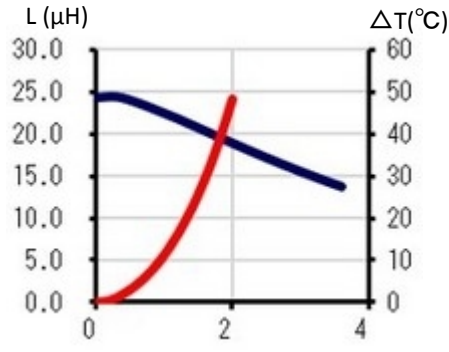
 Recommended Type

10. CY0530AT125DS-150MCY

11. CY0530AT125DS-220MCY



DC(A)



DC(A)



For sales office information, please [click here](#) to visit our website.