

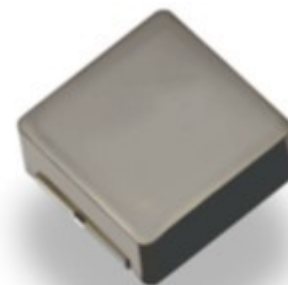
SMD Power Inductor

CY1770AT125/DS



Description

- Metal alloy
- Magnetically shielded
- LxWxH:18x17.3x7.0mm Max.
- Absolute maximum voltage (across inductor): 50V
- Product weight:0.75g (Ref.)
- Moisture Sensitivity Level: 1
- AEC-Q200 qualified



Environmental Data

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

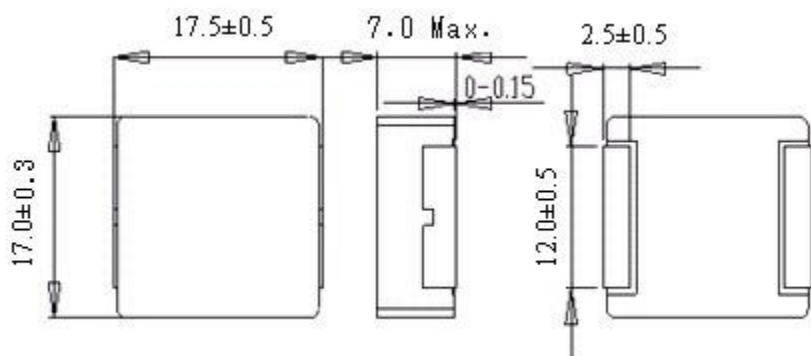
Packaging

- Carrier tape and reel packaging
- 150pcs per reel

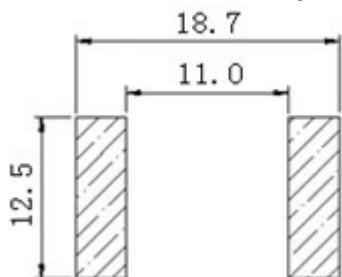
Applications

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

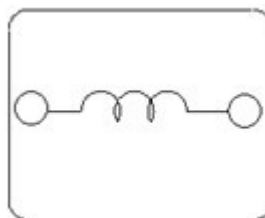
Dimension - [mm]



Recommended Land pattern - [mm]



Wire Connection



SMD Power Inductor

CY1770AT125/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
CY1770AT125DS-1R0MC	1.00 \pm 20%	1.55 (1.35)	43.00 (54.00)	35.00 (40.00)
CY1770AT125DS-1R5MC	1.50 \pm 20%	2.00 (1.70)	38.50 (48.00)	33.00 (37.50)
CY1770AT125DS-2R2MC	2.20 \pm 20%	2.65 (2.30)	31.00 (39.00)	30.00 (34.00)
CY1770AT125DS-3R3MC	3.30 \pm 20%	3.60 (3.10)	30.50 (38.00)	23.00 (26.00)
CY1770AT125DS-4R7MC	4.70 \pm 20%	4.95 (4.30)	24.50 (30.50)	21.00 (24.00)
CY1770AT125DS-5R6MC	5.60 \pm 20%	5.12 (4.45)	23.50 (29.40)	20.00 (23.00)
CY1770AT125DS-6R8MC	6.80 \pm 20%	7.55 (6.55)	22.50 (28.00)	18.00 (20.00)
CY1770AT125DS-8R2MC	8.20 \pm 20%	9.50 (8.20)	16.80 (21.00)	12.00 (13.50)
CY1770AT125DS-100MC	10.00 \pm 20%	10.50 (9.00)	15.00 (19.00)	10.50 (12.00)
CY1770AT125DS-150MC	15.00 \pm 20%	14.50 (12.50)	14.50 (18.50)	10.00 (11.50)
CY1770AT125DS-220MC	22.00 \pm 20%	21.00 (18.00)	12.50 (15.50)	8.00 (9.20)
CY1770AT125DS-330MC	33.00 \pm 20%	37.00 (32.00)	9.50 (12.00)	6.70 (7.50)
CY1770AT125DS-470MC	47.00 \pm 20%	47.00 (41.00)	7.00 (8.80)	5.60 (6.30)

※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

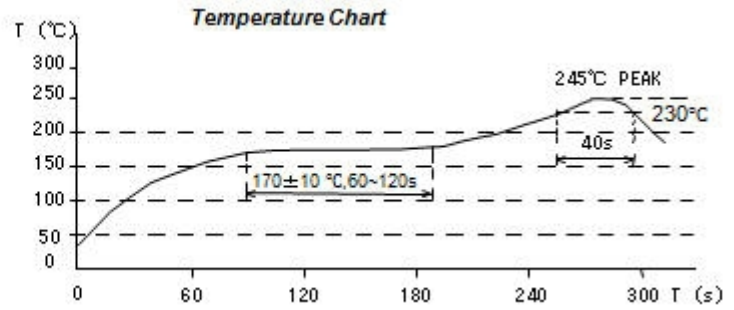
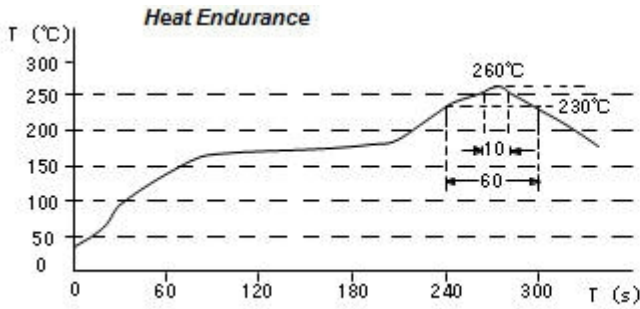
SMD Power Inductor

CY1770AT125/DS



Recommended Type

Solder Reflow Condition



SMD Power Inductor

CY1770AT125/DS

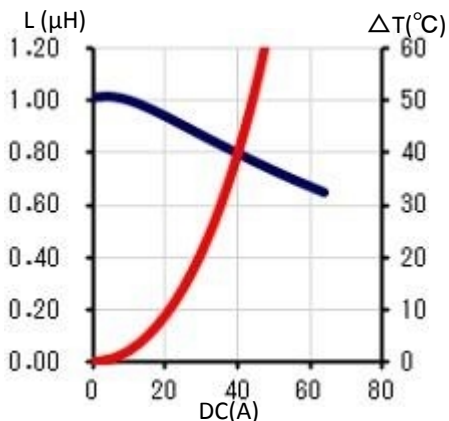


Saturation Current & Temperature Rise Graph

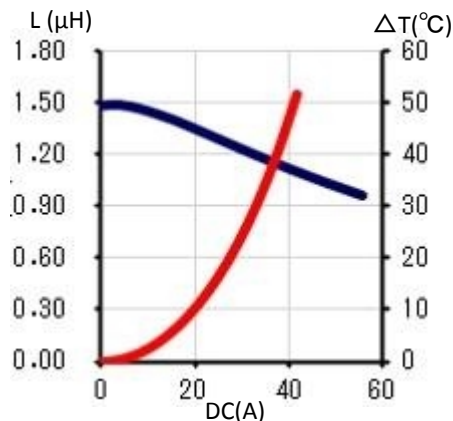
— L (25°C)

— ΔT

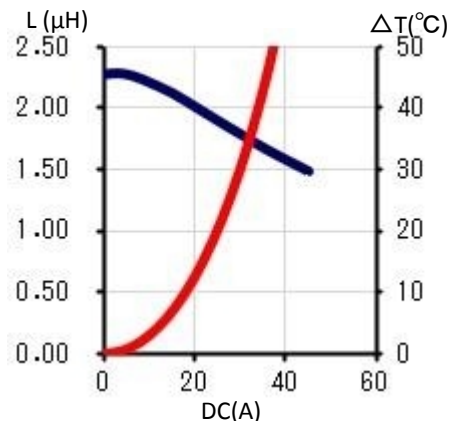
1. CY1770AT125DS-1R0MC



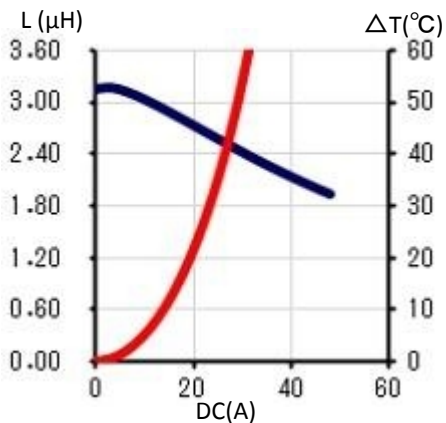
2. CY1770AT125DS-1R5MC



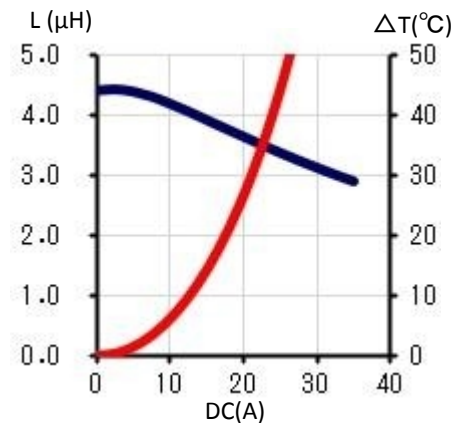
3. CY1770AT125DS-2R2MC



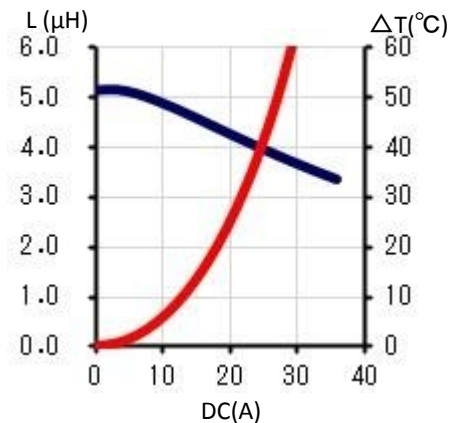
4. CY1770AT125DS-3R3MC



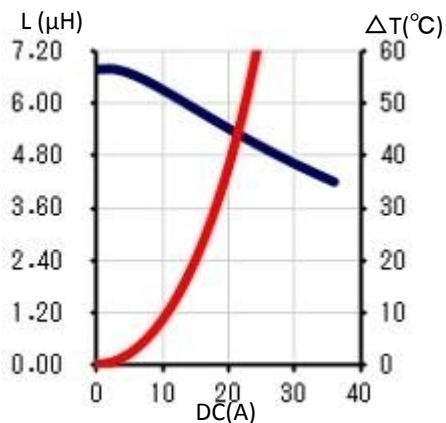
5. CY1770AT125DS-4R7MC



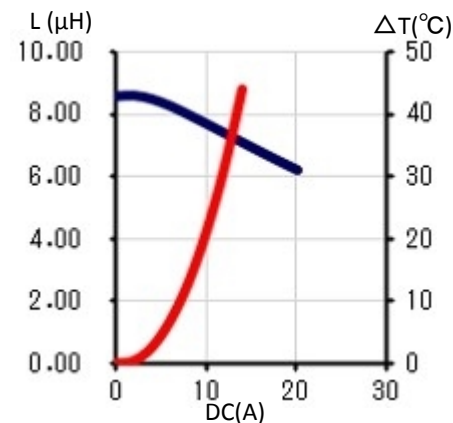
6. CY1770AT125DS-5R6MC



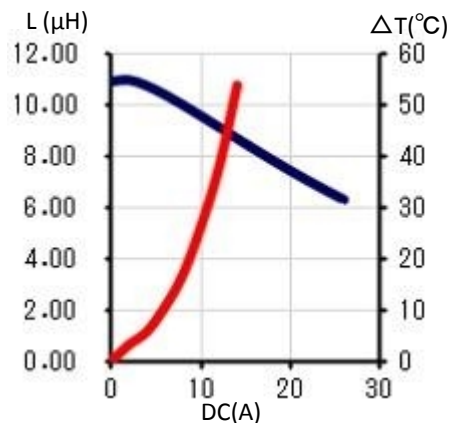
7. CY1770AT125DS-6R8MC



8. CY1770AT125DS-8R2MC



9. CY1770AT125DS-100MC



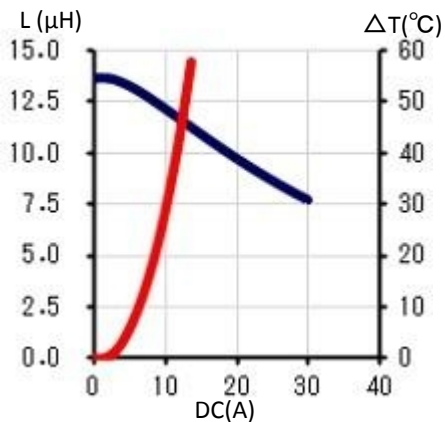
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

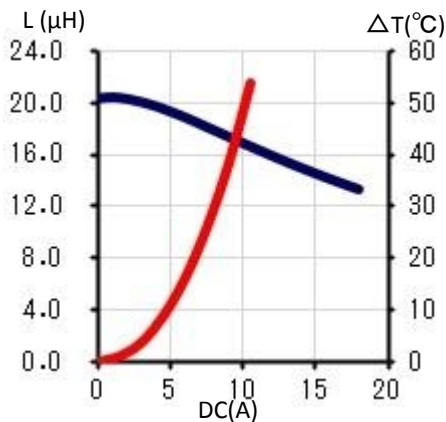
CY1770AT125/DS



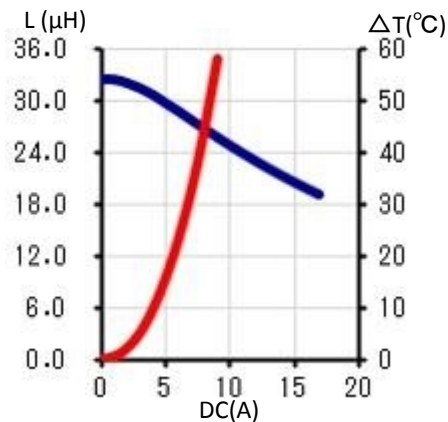
10. CY1770AT125DS-150MC



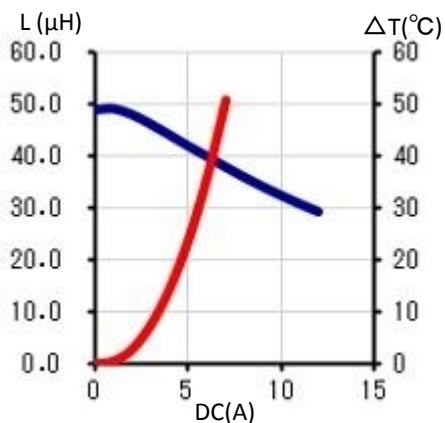
11. CY1770AT125DS-220MC



12. CY1770AT125DS-330MC



13. CY1770AT125DS-470MC



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