

# SMD Power Inductor

## CY1260AT125/DS



### Description

- Metal alloy
- Magnetically shielded
- LxWxH:14x12.9x6mm Max.
- Absolute maximum voltage (across inductor): 50V
- Product weight:5.5 g (Ref.)
- Moisture Sensitivity Level: 1
- AEC-Q200 qualified



### Environmental Data

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

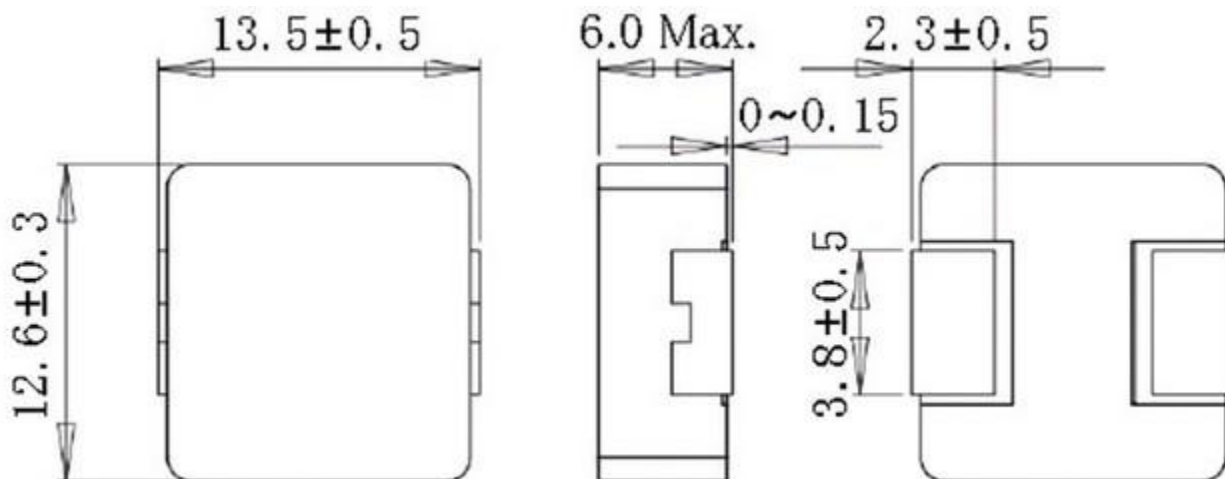
### Packaging

- Carrier tape and reel packaging
- 500pcs per reel

### Applications

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

### Dimension - [mm]



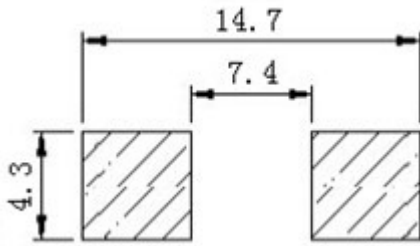
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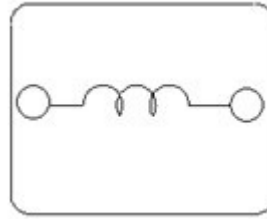
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### Recommended Land pattern - [mm]



### Wire Connection



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### Electrical Characteristics

Part Number	Inductance [Within] ( $\mu$ H) ※1	D.C.R. at 20°C Max.(Typ.) (m $\Omega$ )	Saturation Current (A) Max.(Typ.) ※2	Temperature Rise Current (A) Max.(Typ.) ※3
CY1260AT125DS-R33MC	0.33 $\pm$ 20%	1.10 (0.90)	60.00 (75.00)	38.00 (43.00)
CY1260AT125DS-R47MC	0.47 $\pm$ 20%	1.20 (1.00)	55.00 (67.00)	37.00 (42.00)
CY1260AT125DS-R68MC	0.68 $\pm$ 20%	1.80 (1.60)	46.00 (58.50)	29.00 (33.00)
CY1260AT125DS-1R0MC	1.00 $\pm$ 20%	2.30 (2.00)	37.10 (46.40)	25.00 (28.30)
CY1260AT125DS-1R5MC	1.50 $\pm$ 20%	3.00 (2.60)	28.00 (35.00)	19.60 (22.20)
CY1260AT125DS-2R2MC	2.20 $\pm$ 20%	4.80 (4.20)	25.60 (32.00)	16.00 (18.20)
CY1260AT125DS-3R3MC	3.30 $\pm$ 20%	7.10 (6.20)	24.00 (30.00)	13.50 (16.00)
CY1260AT125DS-4R7MC	4.70 $\pm$ 20%	9.90 (8.60)	16.80 (21.00)	11.00 (12.50)
CY1260AT125DS-6R8MC	6.80 $\pm$ 20%	13.20 (11.50)	16.00 (20.00)	9.50 (11.00)
CY1260AT125DS-8R2MC	8.20 $\pm$ 20%	17.50 (15.20)	11.20 (14.00)	8.70 (9.80)
CY1260AT125DS-100MC	10.00 $\pm$ 20%	20.70 (18.00)	10.80 (13.50)	7.50 (8.60)
CY1260AT125DS-120MC	12.00 $\pm$ 20%	23.00 (20.00)	9.00 (11.30)	6.50 (7.50)
CY1260AT125DS-150MC	15.00 $\pm$ 20%	29.00 (25.00)	8.80 (11.00)	6.00 (6.60)
CY1260AT125DS-180MC	18.00 $\pm$ 20%	30.20 (26.20)	8.50 (10.60)	5.80 (6.40)
CY1260AT125DS-220MC	22.00 $\pm$ 20%	39.50 (34.00)	8.00 (10.00)	5.00 (6.00)
CY1260AT125DS-270MC	27.00 $\pm$ 20%	56.30 (49.00)	7.20 (9.00)	4.20 (4.70)
CY1260AT125DS-330MC	33.00 $\pm$ 20%	63.30 (55.00)	6.80 (8.50)	4.00 (4.60)
CY1260AT125DS-470MC	47.00 $\pm$ 20%	92.00 (80.00)	5.50 (6.80)	3.20 (3.60)
CY1260AT125DS-680MC	68.00 $\pm$ 20%	127 (110)	4.30 (5.40)	2.90 (3.30)
CY1260AT125DS-820MC	82.00 $\pm$ 20%	138 (120)	3.60 (4.50)	2.80 (3.20)
CY1260AT125DS-101MC	100 $\pm$ 20%	190 (165)	3.50 (4.40)	2.40 (2.70)
CY1260AT125DS-151MC	150 $\pm$ 20%	316 (275)	2.80 (3.50)	2.00 (2.50)

※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.

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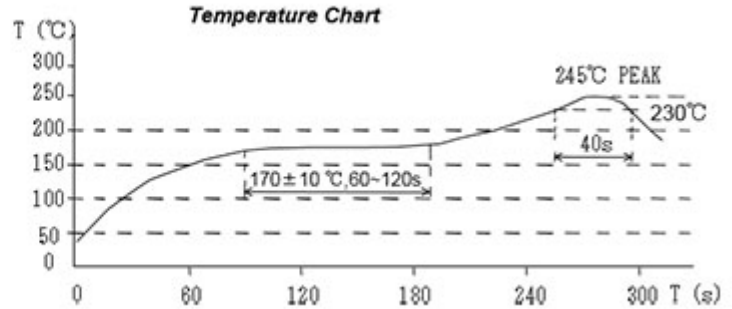
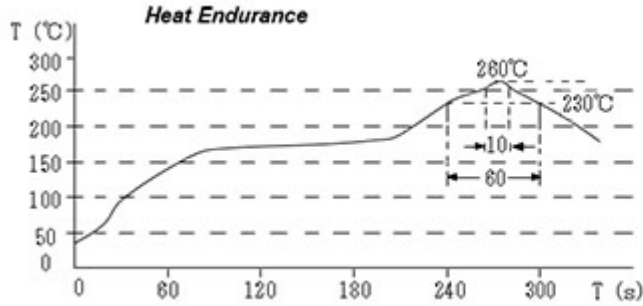
## CY1260AT125/DS



Recommended Type

※ Absolute maximum voltage(across inductor): 50V

### Solder Reflow Condition



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### Saturation Current & Temperature Rise Graph

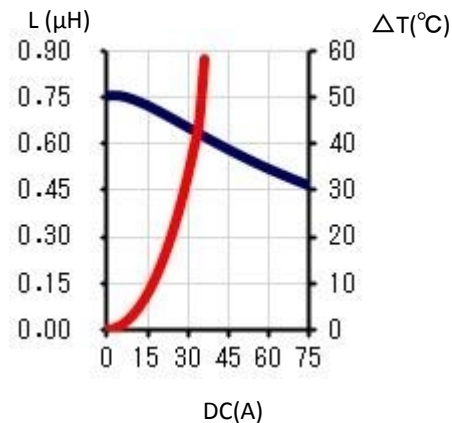
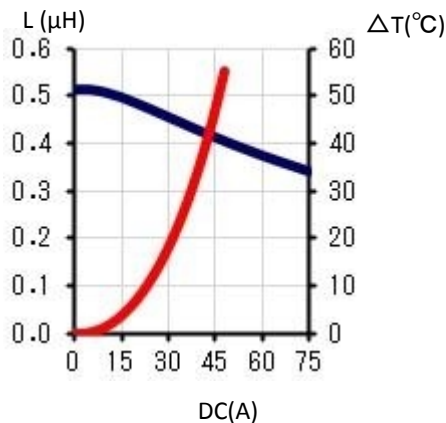
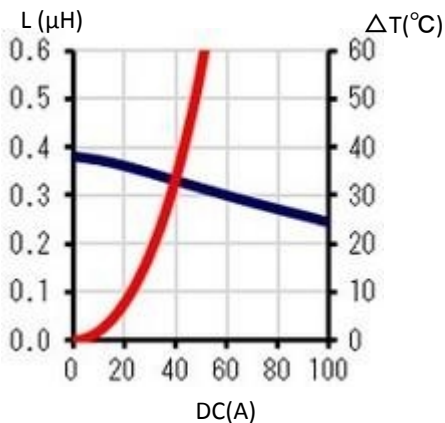
— L (25°C)

—  $\Delta T$

1. CY1260AT125DS-R33MC

2. CY1260AT125DS-R47MC

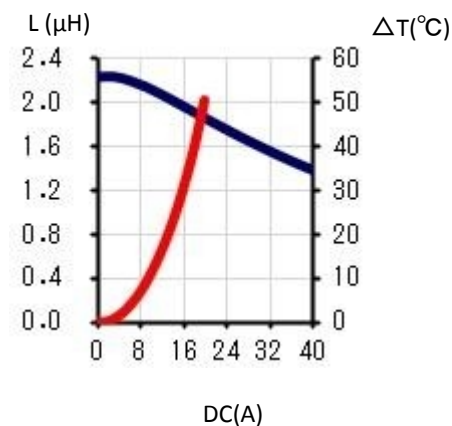
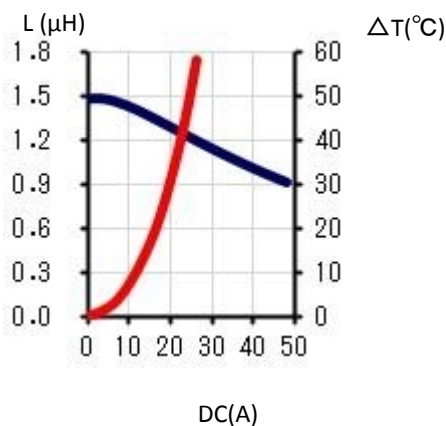
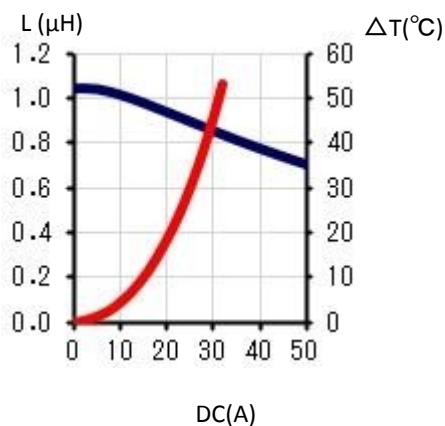
3. CY1260AT125DS-R68MC



4. CY1260AT125DS-1R0MC

5. CY1260AT125DS-1R5MC

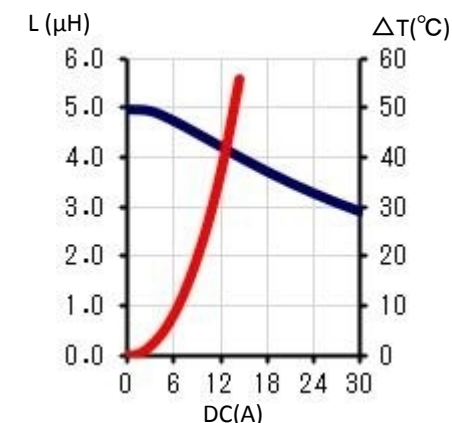
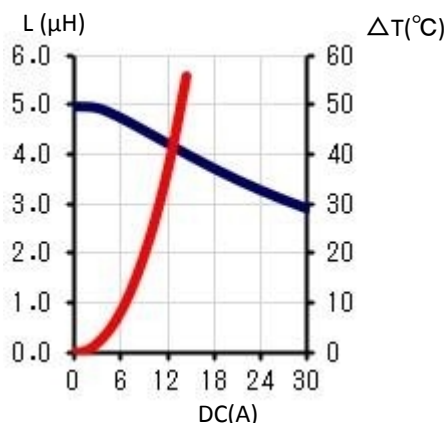
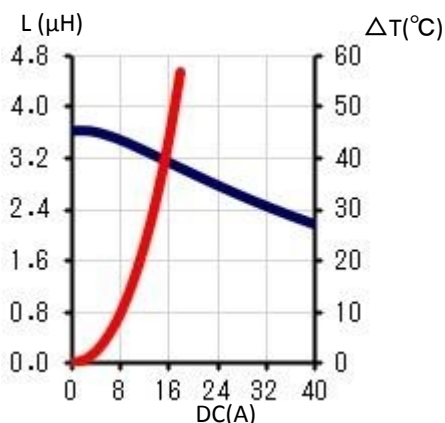
6. CY1260AT125DS-2R2MC



7. CY1260AT125DS-3R3MC

8. CY1260AT125DS-4R7MC

9. CY1260AT125DS-6R8MC



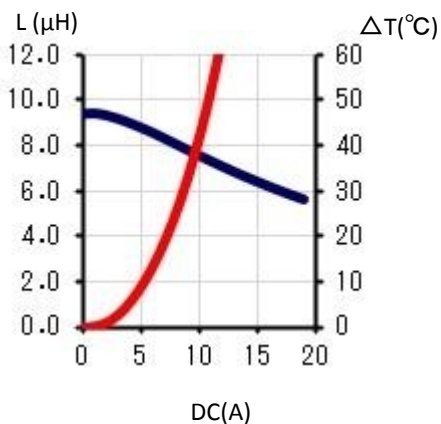
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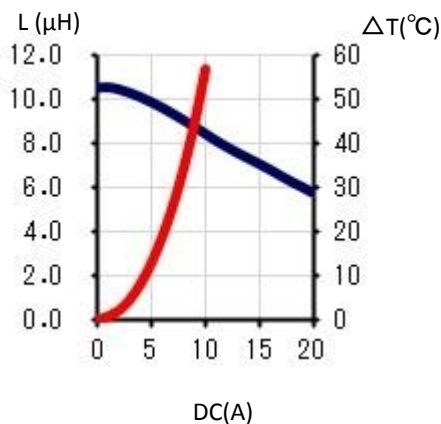
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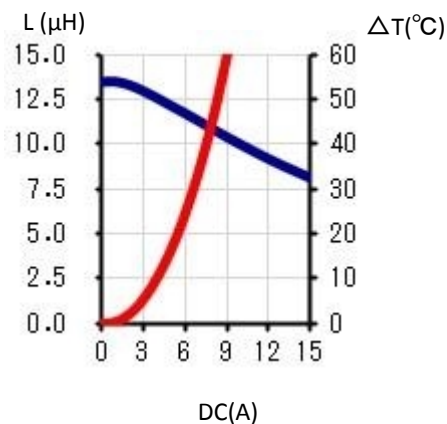
10. CY1260AT125DS-8R2MC



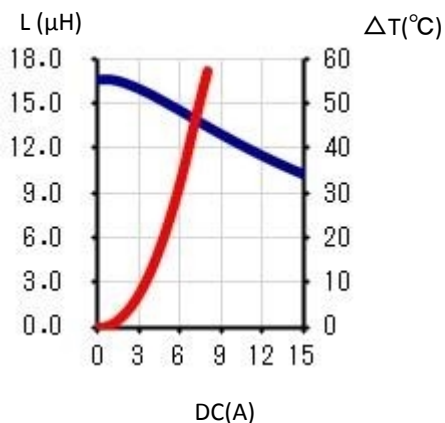
11. CY1260AT125DS-100MC



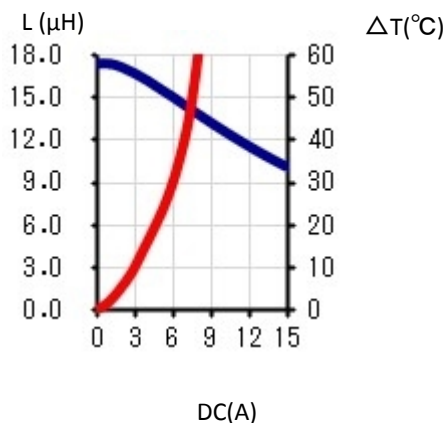
12. CY1260AT125DS-120MC



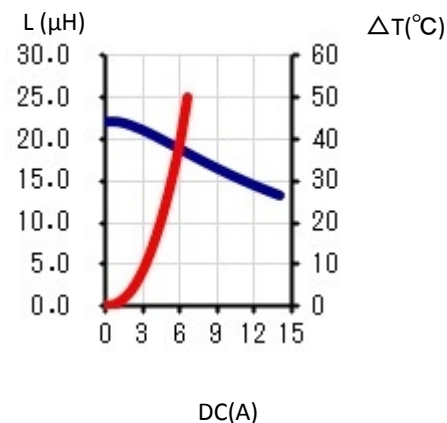
13. CY1260AT125DS-150MC



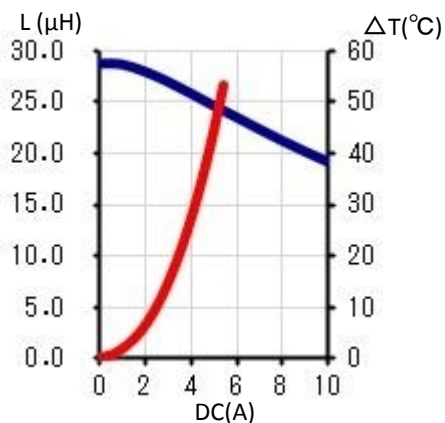
14. CY1260AT125DS-180MC



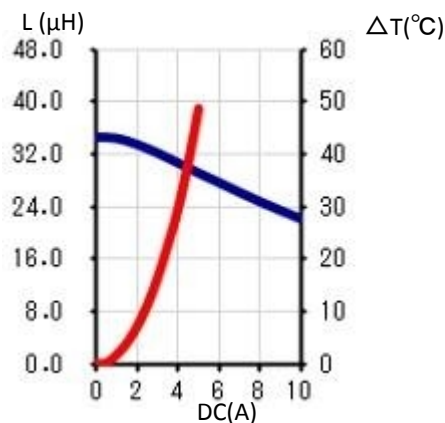
15. CY1260AT125DS-220MC



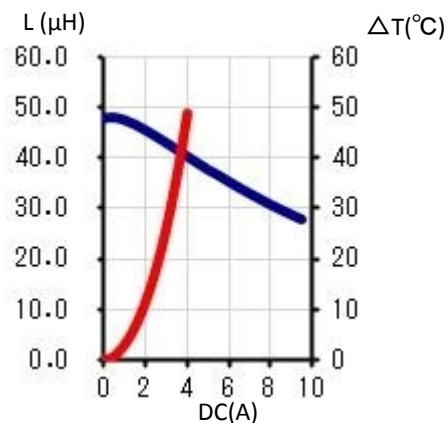
16. CY1260AT125DS-270MC



17. CY1260AT125DS-330MC



18. CY1260AT125DS-470MC

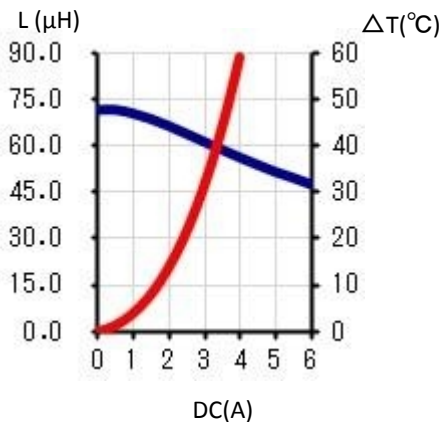


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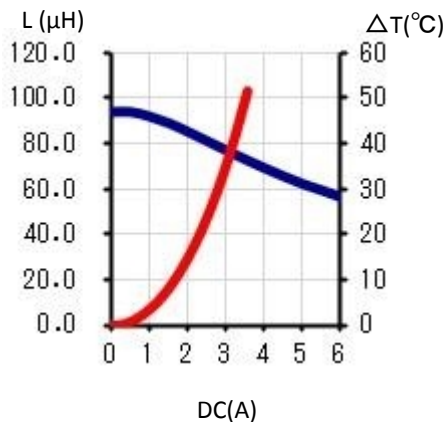
## CY1260AT125/DS



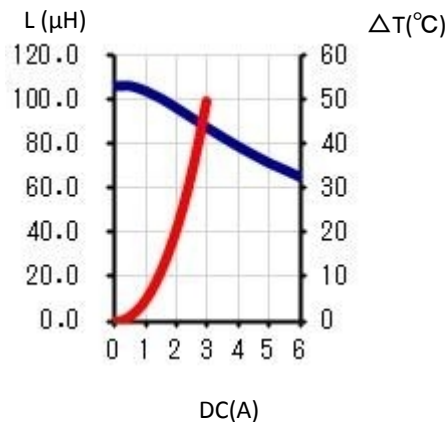
19. CY1260AT125DS-680MC



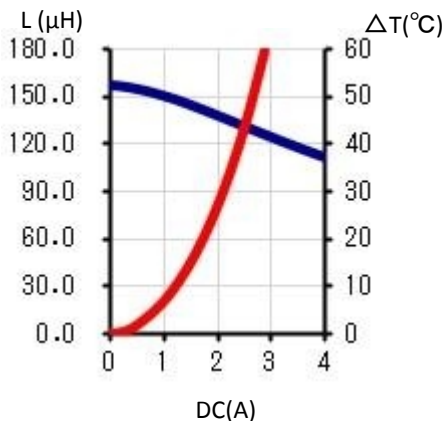
20. CY1260AT125DS-820MC



21. CY1260AT125DS-101MC



22. CY1260AT125DS-151MC



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