

# SMD Power Inductor

## CD54/T125



### Description

- Ferrite drum core construction
- Magnetically unshielded
- LxWxH: 6.1x5.5x4.85mm Max.
- Product weight 0.4g(Ref.)
- Moisture Sensitivity Level: 1
- Qualification to AEC-Q200



### Environmental Data

- Operating Temperature: -40°C to +125°C (including self-heating)
- Storage temperature range: -40°C~+125°C

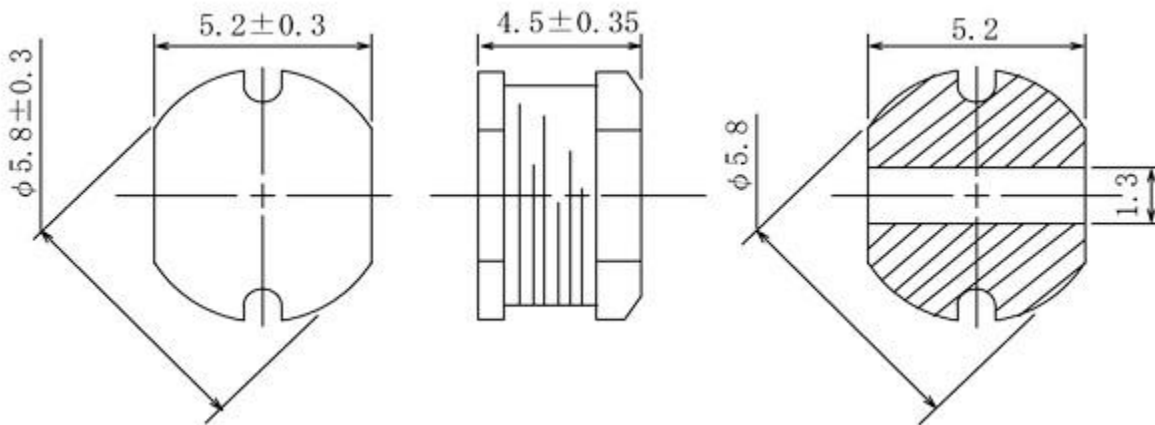
### Packaging

- Carrier tape and reel packaging

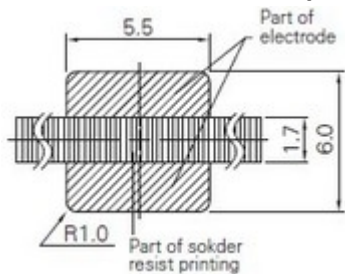
### Applications

- High temp and high reliability automotive applications

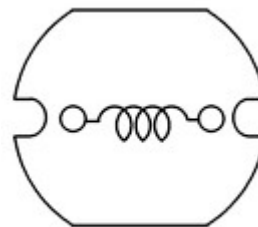
### Dimension - [mm]



### 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
CD54T125NP-100MC	10.00 $\pm$ 20%	100 (55.00)	1.55 (1.94)	2.23 (2.55)
CD54T125NP-120MC	12.00 $\pm$ 20%	120 (61.00)	1.46 (1.82)	2.15 (2.45)
CD54T125NP-150MC	15.00 $\pm$ 20%	140 (85.00)	1.26 (1.58)	1.88 (2.15)
CD54T125NP-180MC	18.00 $\pm$ 20%	150 (93.00)	1.19 (1.49)	1.68 (1.93)
CD54T125NP-220MC	22.00 $\pm$ 20%	180 (123)	1.15 (1.44)	1.52 (1.75)
CD54T125NP-270MC	27.00 $\pm$ 20%	200 (139)	1.02 (1.28)	1.44 (1.65)
CD54T125NP-330LC	33.00 $\pm$ 15%	230 (162)	0.93 (1.16)	1.29 (1.47)
CD54T125NP-390LC	39.00 $\pm$ 15%	320 (218)	0.82 (1.02)	1.10 (1.27)
CD54T125NP-470LC	47.00 $\pm$ 15%	370 (247)	0.73 (0.91)	1.05 (1.21)
CD54T125NP-560KC	56.00 $\pm$ 10%	420 (278)	0.70 (0.88)	1.00 (1.15)
CD54T125NP-680KC	68.00 $\pm$ 10%	460 (318)	0.64 (0.80)	0.98 (1.12)
CD54T125NP-820KC	82.00 $\pm$ 10%	600 (400)	0.57 (0.71)	0.84 (0.97)
CD54T125NP-101KC	100 $\pm$ 10%	700 (470)	0.52 (0.65)	0.76 (0.87)
CD54T125NP-121KC	120 $\pm$ 10%	930 (630)	0.48 (0.60)	0.65 (0.74)
CD54T125NP-151KC	150 $\pm$ 10%	1100 (720)	0.44 (0.55)	0.62 (0.72)
CD54T125NP-181KC	180 $\pm$ 10%	1380 (950)	0.40 (0.50)	0.54 (0.61)
CD54T125NP-221KC	220 $\pm$ 10%	1570 (1080)	0.36 (0.45)	0.52 (0.59)

※1 Measured frequency Inductance 10  $\mu$ H ~ 82  $\mu$ H ; at 2.52 MHz  
100  $\mu$ H ~ 220  $\mu$ H ; at 1 kHz

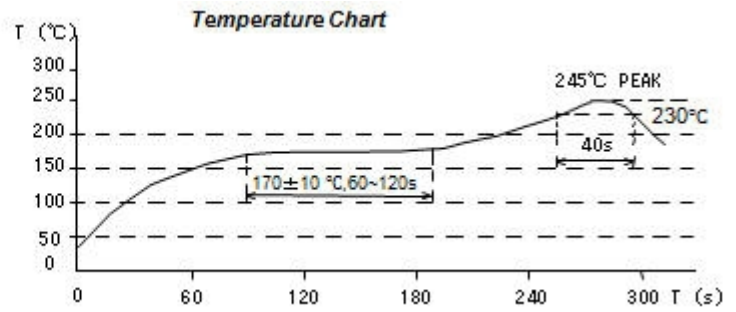
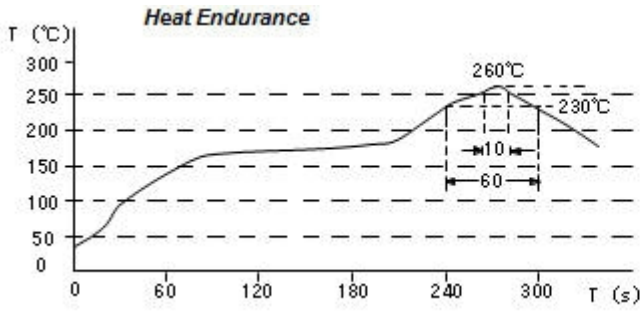
※2 Saturation current: This indicates the actual value of D.C. current when the inductance becomes 10% lower than its initial value(Ta=20°C).

※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes  $\Delta$ T=40°C (Ta=20°C).

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## Solder Reflow Condition



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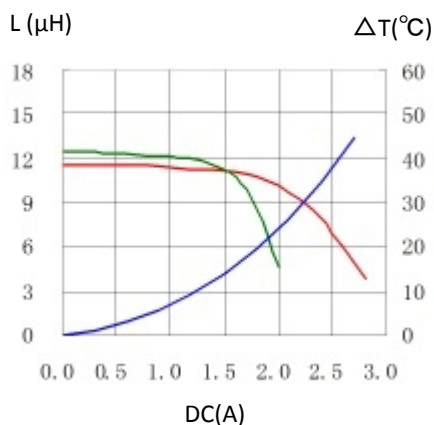
## CD54/T125



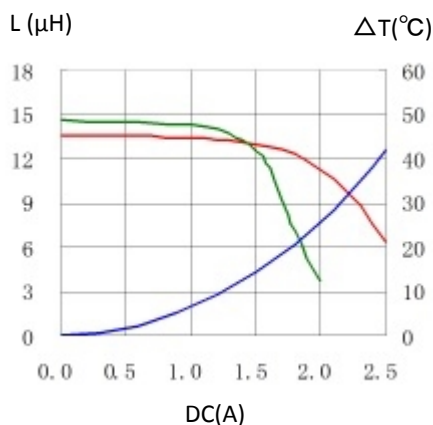
### Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

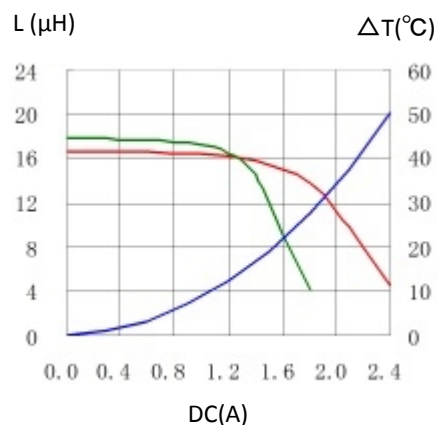
1. CD54T125NP-100MC



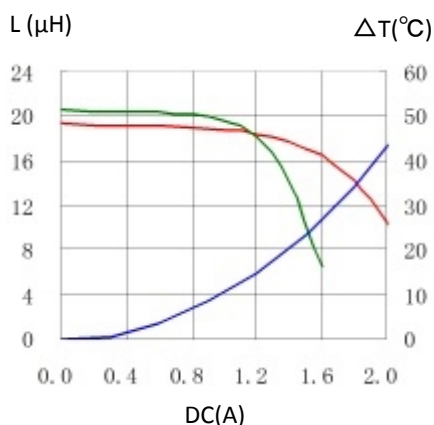
2. CD54T125NP-120MC



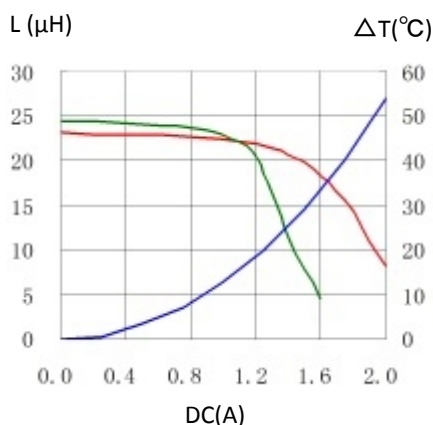
3. CD54T125NP-150MC



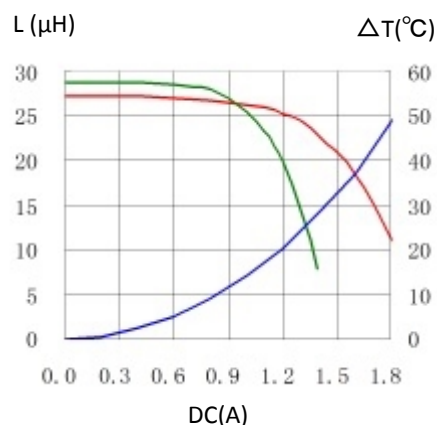
4. CD54T125NP-180MC



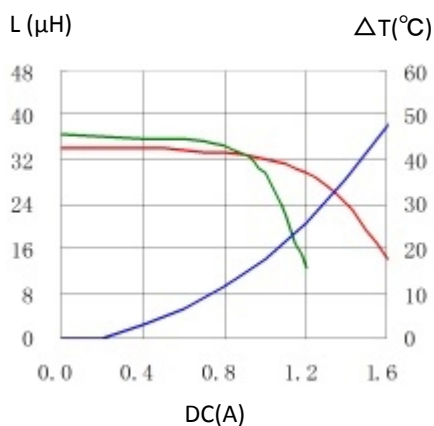
5. CD54T125NP-220MC



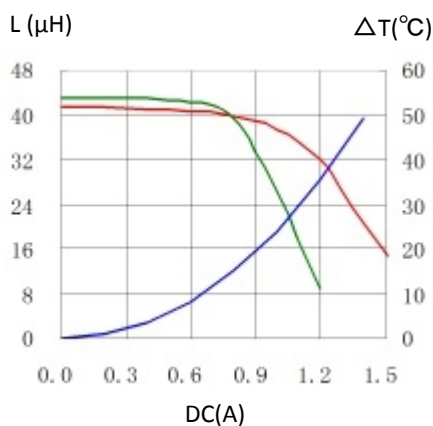
6. CD54T125NP-270MC



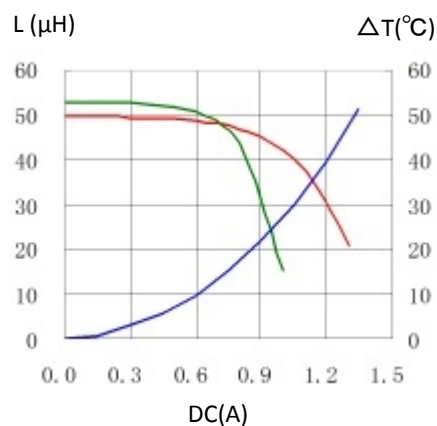
7. CD54T125NP-330LC



8. CD54T125NP-390LC



9. CD54T125NP-470LC



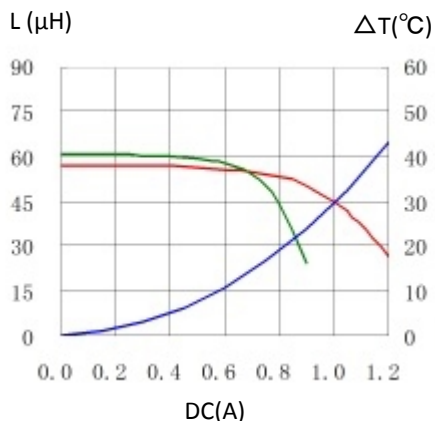
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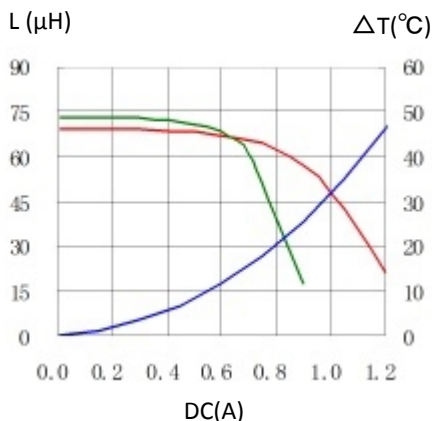


Recommended Type

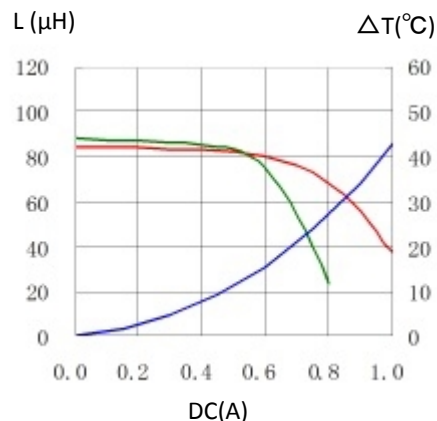
10. CD54T125NP-560KC



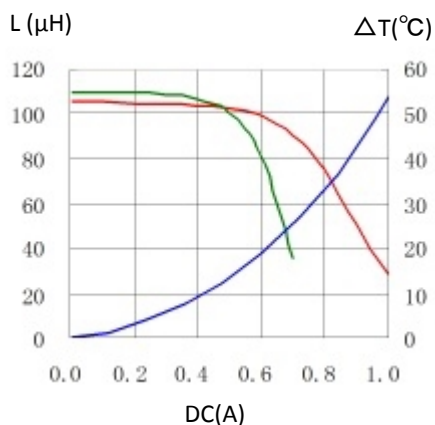
11. CD54T125NP-680KC



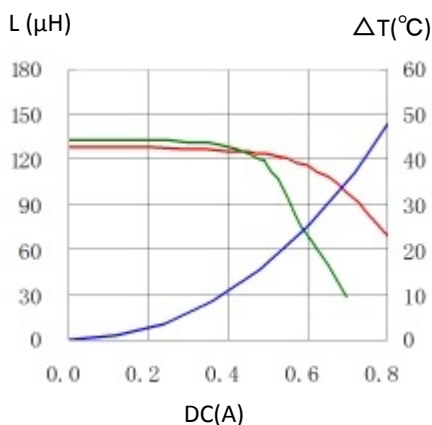
12. CD54T125NP-820KC



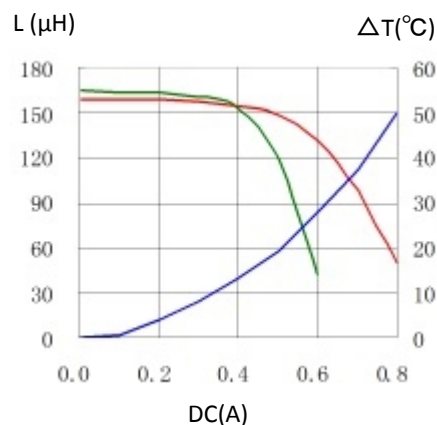
13. CD54T125NP-101KC



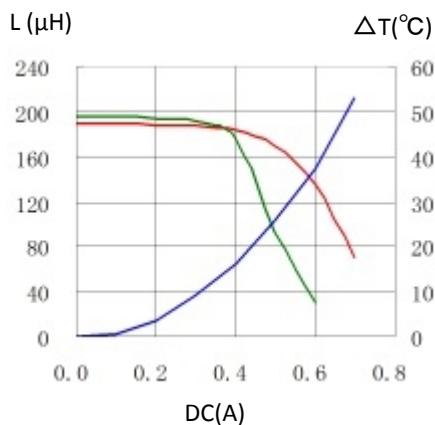
14. CD54T125NP-121KC



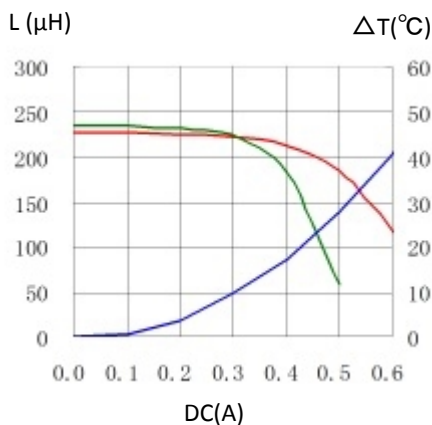
15. CD54T125NP-151KC



16. CD54T125NP-181KC



17. CD54T125NP-221KC



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