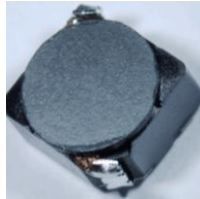


# SMD Power Inductor

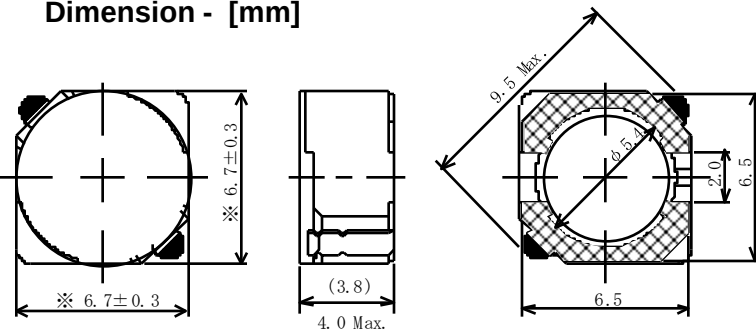
## CDRH6D38/T125



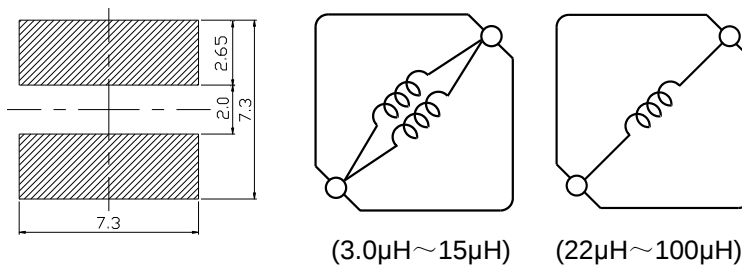
### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 7.0 × 7.0 × 4.0 mm Max.
- Product weight: 0.6g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Qualification to AEC-Q200.

### Dimension - [mm]



### Land pattern and Schematics - [mm]



### Environmental Data

- Operating temperature range: -40°C ~ +125°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +125°C
- Solder reflow temperature: 260 °C peak.

### Packaging

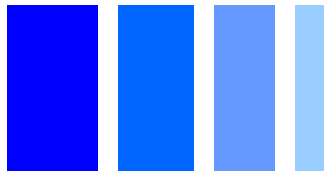
- Carrier tape and reel packaging
- 13.0" diameter reel
- 1000pcs per reel

### Applications

- Automotive and other high temperature, high reliability application.

# SMD Power Inductor

## CDRH6D38/T125



### Electrical Characteristics

| Part Name            | Stamp | Inductance<br>( $\mu$ H)<br>100kHz | D.C.R.(m $\Omega$ )<br>[Max.]<br>(at 20°C) | Saturation Current<br>(A) ※1 |                     | Temperature<br>Rise Current<br>(A) ※2 |
|----------------------|-------|------------------------------------|--------------------------------------------|------------------------------|---------------------|---------------------------------------|
|                      |       |                                    |                                            | (at20°C)                     | (at125°C)<br>(Typ.) |                                       |
| CDRH6D38T125NP-3R0NC | 3R0   | 3.0 $\pm$ 30%                      | 22.0(17.5)                                 | 3.90                         | 3.00                | 4.50                                  |
| CDRH6D38T125NP-3R9NC | 3R9   | 3.9 $\pm$ 30%                      | 24.5(19.6)                                 | 3.30                         | 2.50                | 4.00                                  |
| CDRH6D38T125NP-4R7NC | 4R7   | 4.7 $\pm$ 30%                      | 27.5(22.0)                                 | 3.10                         | 2.40                | 3.80                                  |
| CDRH6D38T125NP-5R6NC | 5R6   | 5.6 $\pm$ 30%                      | 30.5(24.4)                                 | 2.85                         | 2.10                | 3.50                                  |
| CDRH6D38T125NP-6R8NC | 6R8   | 6.8 $\pm$ 30%                      | 33.0(26.4)                                 | 2.65                         | 2.00                | 3.30                                  |
| CDRH6D38T125NP-100PC | 100   | 10 $\pm$ 25%                       | 43.5(34.8)                                 | 2.20                         | 1.70                | 3.00                                  |
| CDRH6D38T125NP-150PC | 150   | 15 $\pm$ 25%                       | 59.8(47.8)                                 | 1.80                         | 1.50                | 2.20                                  |
| CDRH6D38T125NP-220PC | 220   | 22 $\pm$ 25%                       | 103.4(82.7)                                | 1.50                         | 1.00                | 1.65                                  |
| CDRH6D38T125NP-330PC | 330   | 33 $\pm$ 25%                       | 145(116)                                   | 1.25                         | 0.95                | 1.45                                  |
| CDRH6D38T125NP-470PC | 470   | 47 $\pm$ 25%                       | 181(145)                                   | 1.00                         | 0.80                | 1.20                                  |
| CDRH6D38T125NP-680PC | 680   | 68 $\pm$ 25%                       | 250(200)                                   | 0.85                         | 0.65                | 1.00                                  |
| CDRH6D38T125NP-101PC | 101   | 100 $\pm$ 25%                      | 372(298)                                   | 0.68                         | 0.55                | 0.85                                  |

※1. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

※2. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

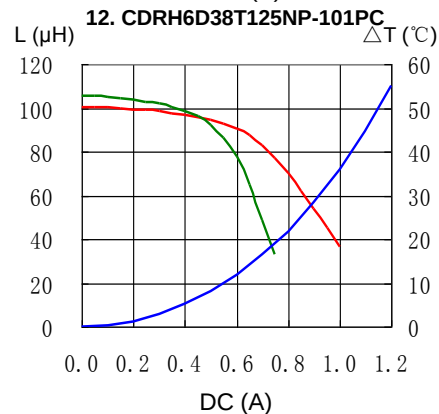
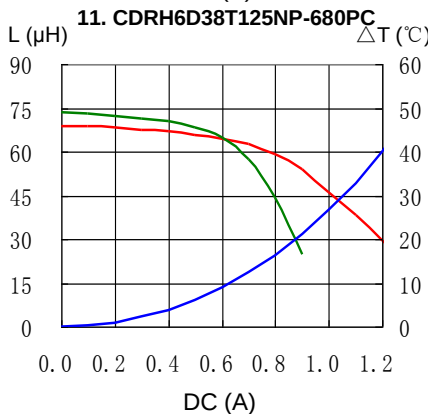
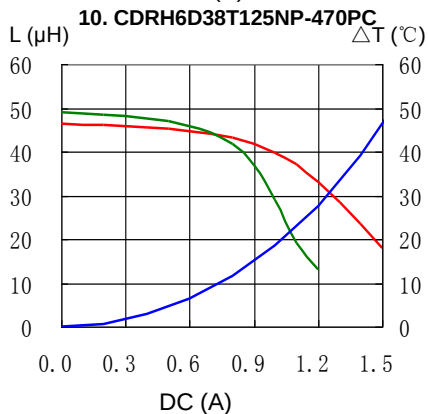
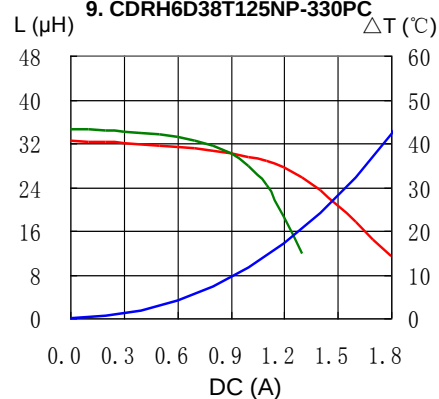
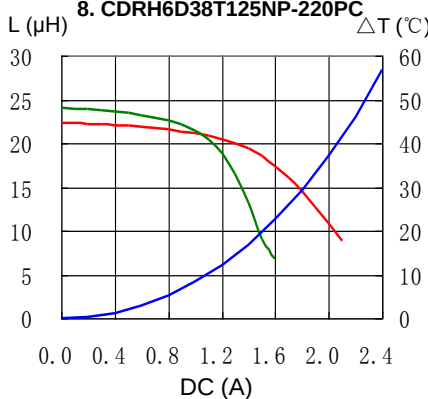
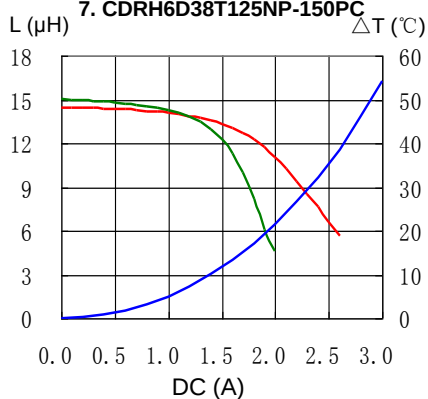
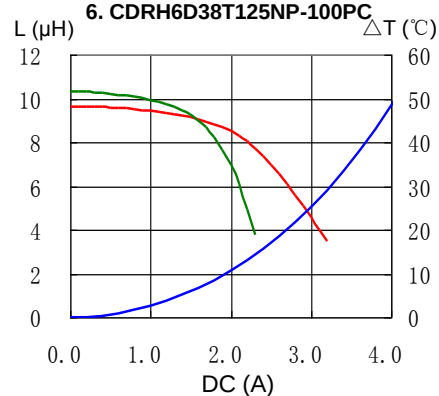
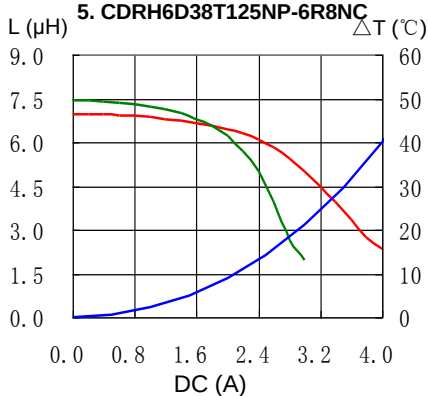
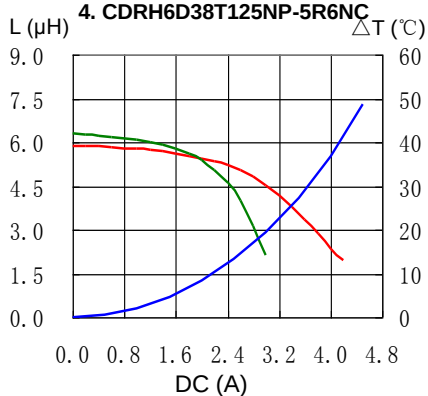
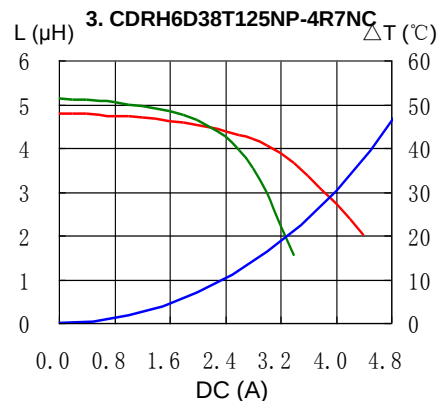
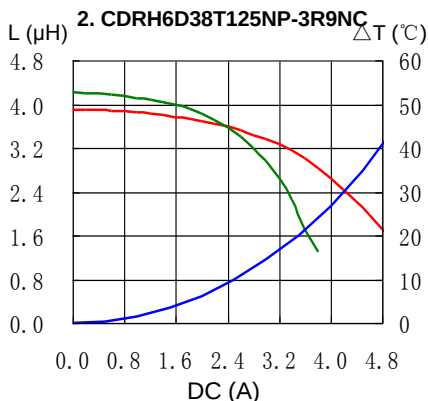
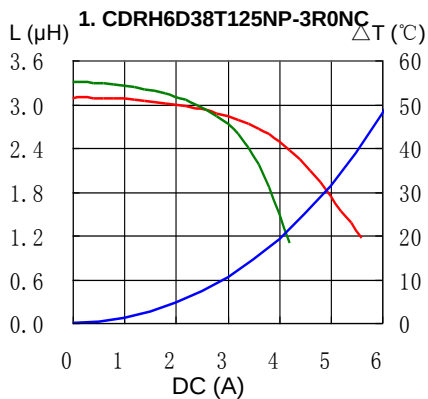
# SMD Power Inductor

## CDRH6D38/T125



### Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$

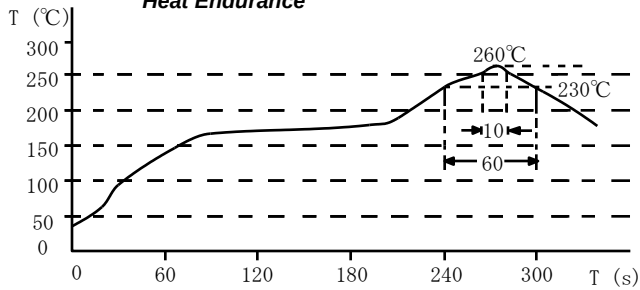


# SMD Power Inductor CDRH6D38/T125

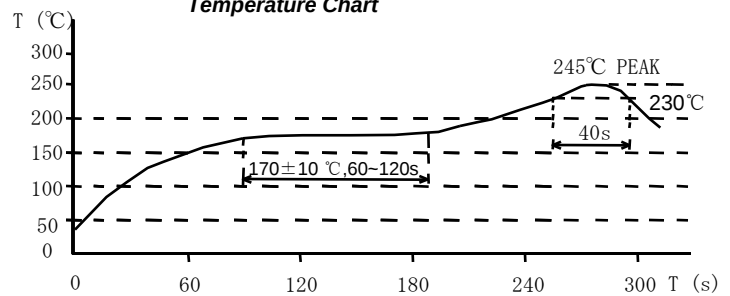


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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