

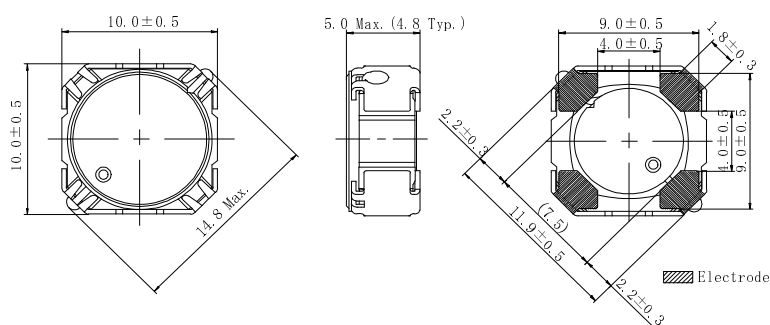
# SMD Power Inductor CDRH10D48/A



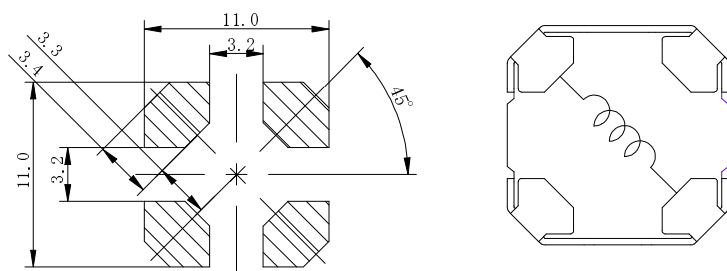
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.5 × 10.5 × 5.0 mm Max.
- Product weight: 1.8 g(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 ~ +85°C
- Solder reflow temperature: 260 °C peak.

## Packaging

- Carrier tape and reel packaging.
- 11.8" diameter reel
- 500pcs per reel

## Applications

- Automotive and other high temperature, high reliability application.

# SMD Power Inductor

## CDRH10D48/A



### Electrical Characteristics

| Part No.            | Stamp | Inductance<br>[ $\mu$ H]<br>[within] ※1 | D.C.R. (m $\Omega$ )<br>[Max.] (Typ.)<br>(at 20°C) | Rated current (A)<br>※2 |
|---------------------|-------|-----------------------------------------|----------------------------------------------------|-------------------------|
| CDRH10D48/ANP-2R4MC | 2R4   | 2.4 $\mu$ H $\pm$ 20%                   | 12(9)                                              | 5.2                     |
| CDRH10D48/ANP-3R4MC | 3R4   | 3.4 $\mu$ H $\pm$ 20%                   | 13(10)                                             | 4.8                     |
| CDRH10D48/ANP-4R3MC | 4R3   | 4.3 $\mu$ H $\pm$ 20%                   | 15(12)                                             | 4.3                     |
| CDRH10D48/ANP-5R8MC | 5R8   | 5.8 $\mu$ H $\pm$ 20%                   | 24(19)                                             | 3.8                     |
| CDRH10D48/ANP-7R2MC | 7R2   | 7.2 $\mu$ H $\pm$ 20%                   | 29(23)                                             | 2.9                     |
| CDRH10D48/ANP-8R7MC | 8R7   | 8.7 $\mu$ H $\pm$ 20%                   | 37(29)                                             | 2.7                     |
| CDRH10D48/ANP-100MC | 100   | 10 $\mu$ H $\pm$ 20%                    | 40(32)                                             | 2.6                     |
| CDRH10D48/ANP-120MC | 120   | 12 $\mu$ H $\pm$ 20%                    | 44(35)                                             | 2.5                     |
| CDRH10D48/ANP-150MC | 150   | 15 $\mu$ H $\pm$ 20%                    | 49(39)                                             | 2.3                     |
| CDRH10D48/ANP-180MC | 180   | 18 $\mu$ H $\pm$ 20%                    | 62(49)                                             | 2.2                     |
| CDRH10D48/ANP-220MC | 220   | 22 $\mu$ H $\pm$ 20%                    | 70(56)                                             | 1.9                     |
| CDRH10D48/ANP-270MC | 270   | 27 $\mu$ H $\pm$ 20%                    | 90(72)                                             | 1.7                     |
| CDRH10D48/ANP-330MC | 330   | 33 $\mu$ H $\pm$ 20%                    | 113(90)                                            | 1.5                     |
| CDRH10D48/ANP-390MC | 390   | 39 $\mu$ H $\pm$ 20%                    | 127(101)                                           | 1.4                     |
| CDRH10D48/ANP-470MC | 470   | 47 $\mu$ H $\pm$ 20%                    | 138(110)                                           | 1.3                     |
| CDRH10D48/ANP-560MC | 560   | 56 $\mu$ H $\pm$ 20%                    | 172(137)                                           | 1.2                     |
| CDRH10D48/ANP-680MC | 680   | 68 $\mu$ H $\pm$ 20%                    | 209(167)                                           | 1.1                     |
| CDRH10D48/ANP-820MC | 820   | 82 $\mu$ H $\pm$ 20%                    | 268(214)                                           | 0.97                    |
| CDRH10D48/ANP-101MC | 101   | 100 $\mu$ H $\pm$ 20%                   | 294(235)                                           | 0.92                    |
| CDRH10D48/ANP-121MC | 121   | 120 $\mu$ H $\pm$ 20%                   | 374(299)                                           | 0.82                    |
| CDRH10D48/ANP-151MC | 151   | 150 $\mu$ H $\pm$ 20%                   | 437(349)                                           | 0.77                    |
| CDRH10D48/ANP-181MC | 181   | 180 $\mu$ H $\pm$ 20%                   | 558(446)                                           | 0.65                    |
| CDRH10D48/ANP-221MC | 221   | 220 $\mu$ H $\pm$ 20%                   | 637(509)                                           | 0.61                    |
| CDRH10D48/ANP-271MC | 271   | 270 $\mu$ H $\pm$ 20%                   | 839(671)                                           | 0.53                    |
| CDRH10D48/ANP-331MC | 331   | 330 $\mu$ H $\pm$ 20%                   | 938(750)                                           | 0.49                    |

※1. Measuring condition: at 100 kHz.

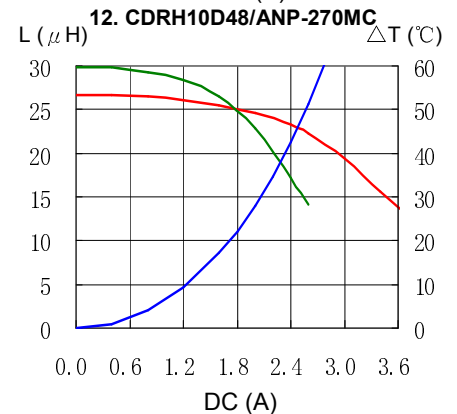
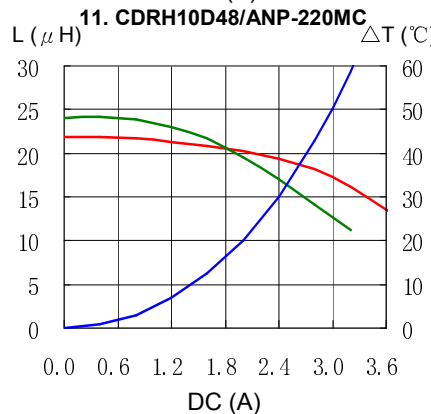
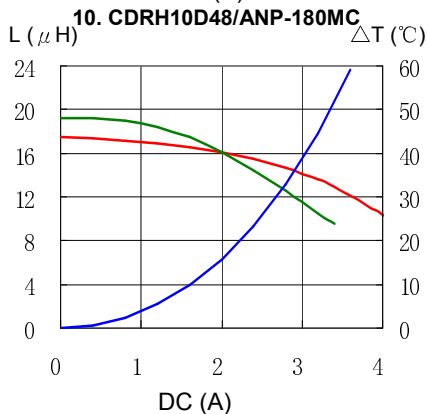
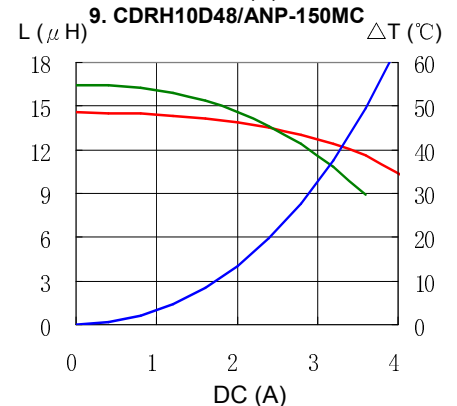
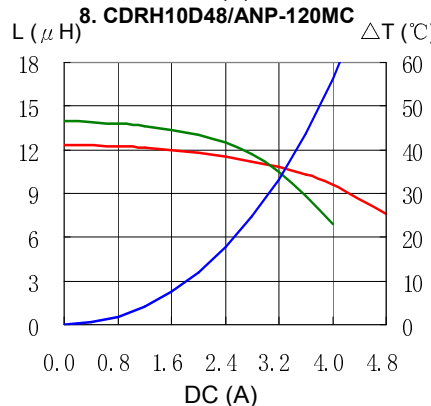
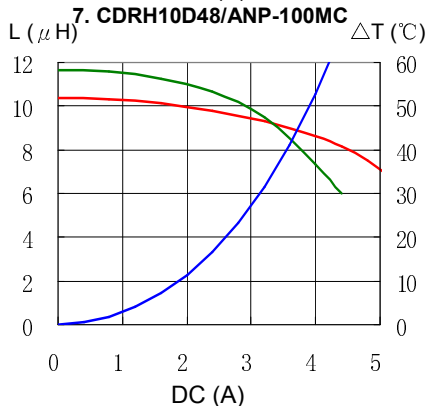
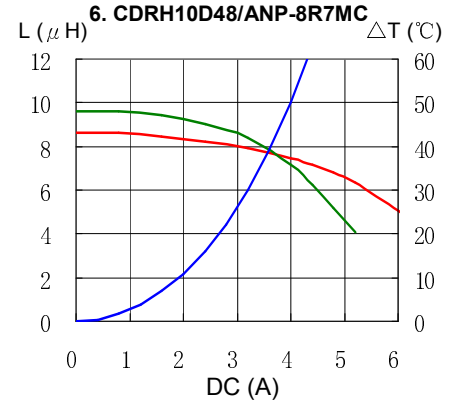
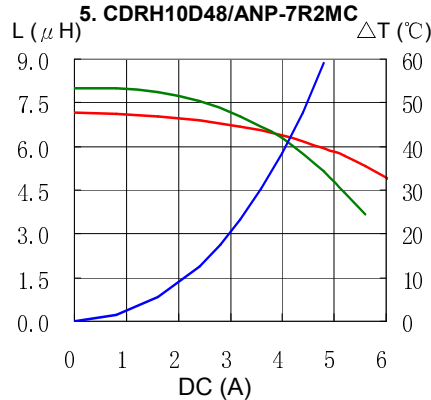
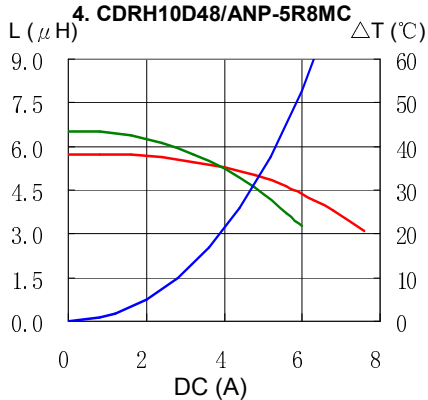
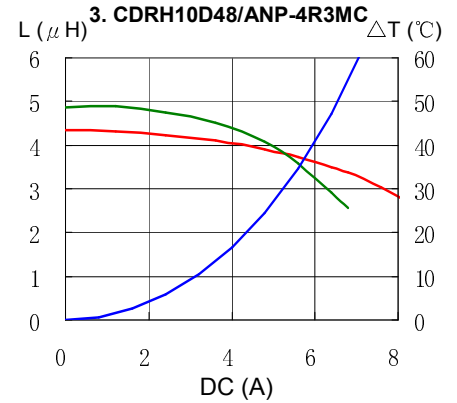
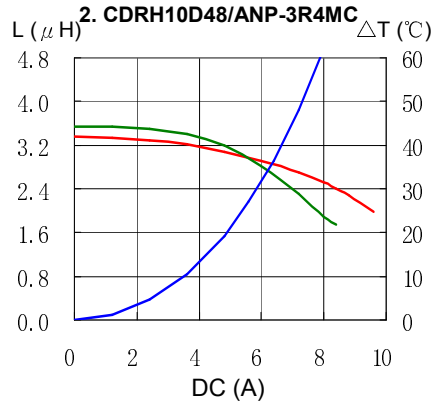
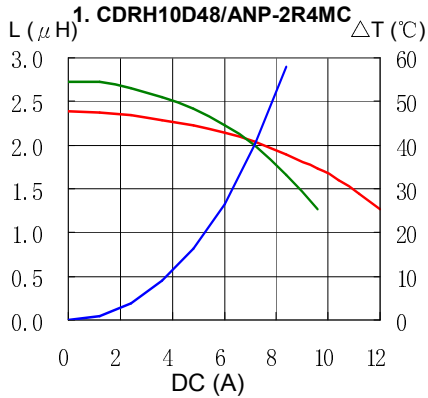
※2. The value of current when the inductance decrease to 65% of it's nominal value or DC current when  $\Delta T=30^{\circ}\text{C}$  whichever is lower .( $T_a=125^{\circ}\text{C}$ )

# SMD Power Inductor CDRH10D48/A



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$

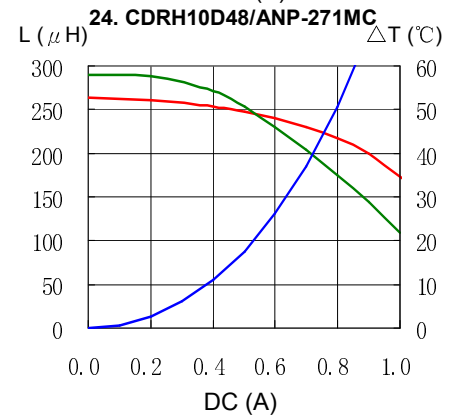
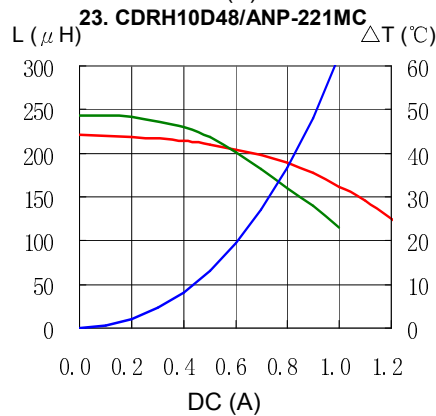
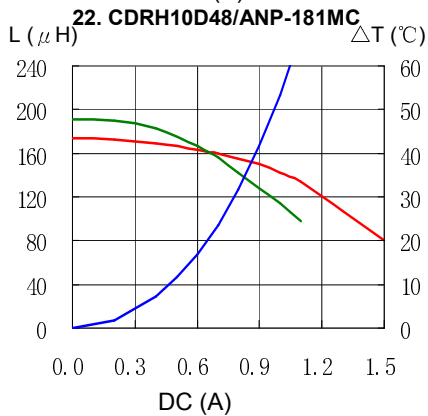
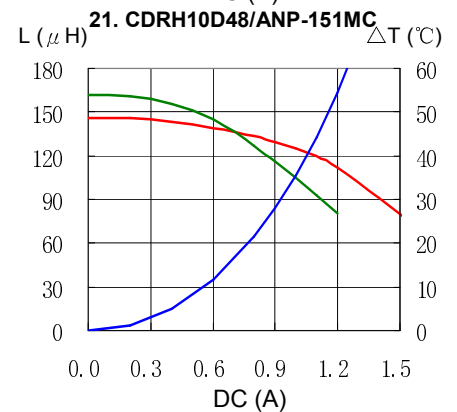
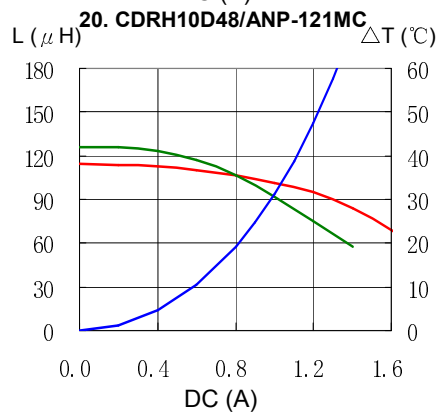
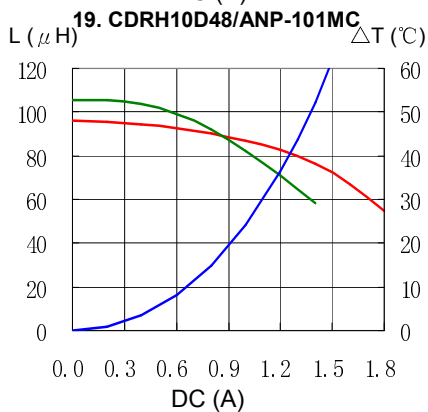
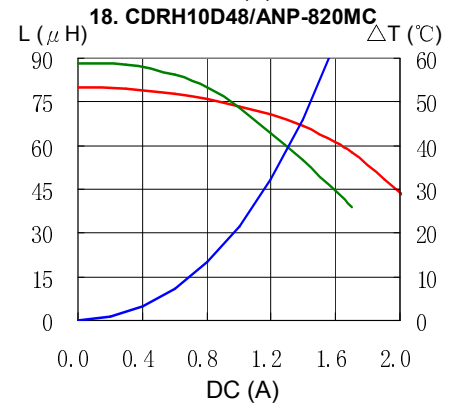
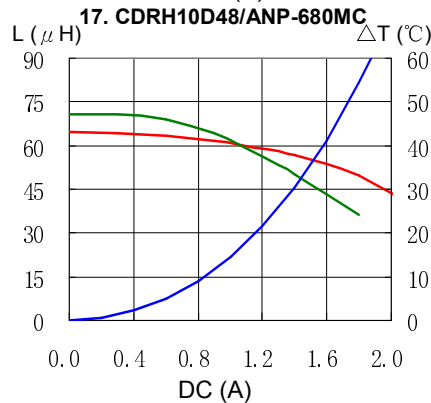
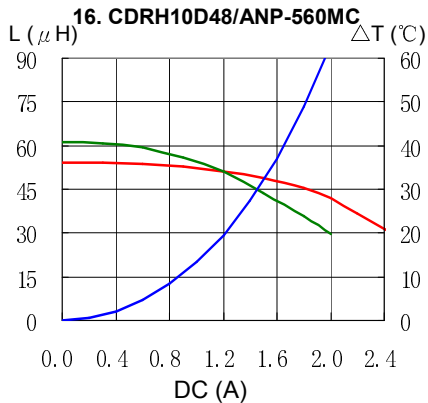
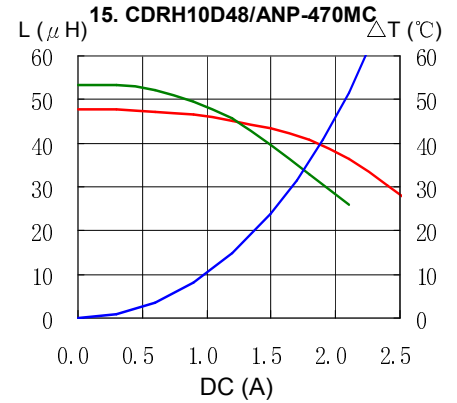
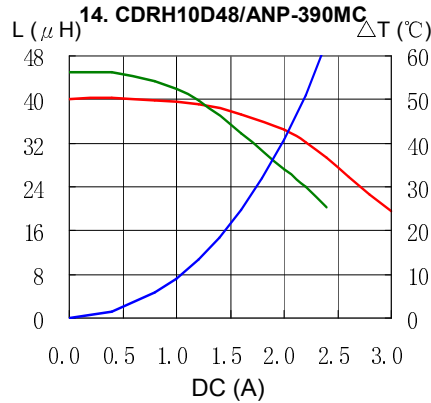
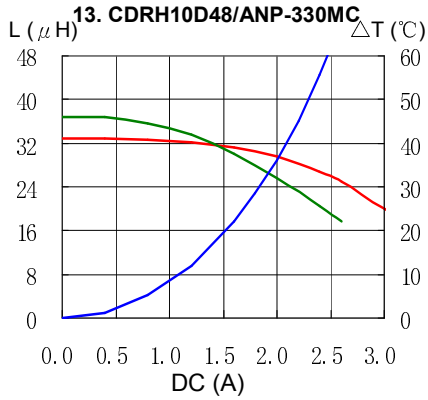


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## Saturation Current & Temperature Rise Graph

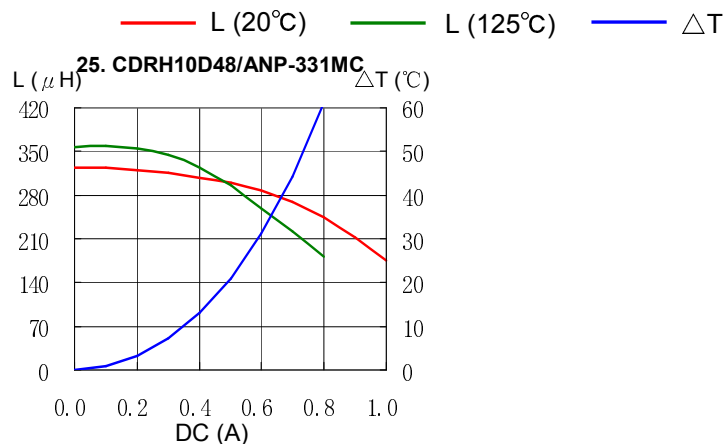
— L (20°C) — L (125°C) —  $\Delta T$



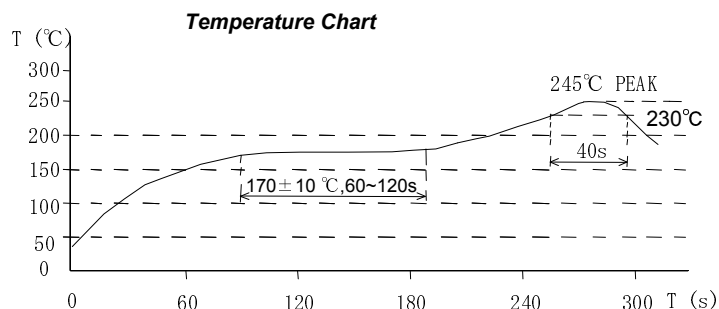
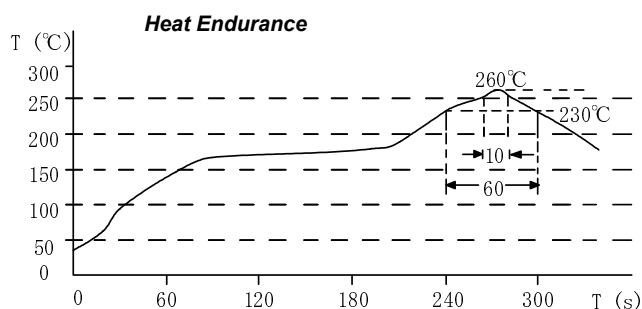
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## Saturation Current & Temperature Rise Graph



## Solder Reflow Condition



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