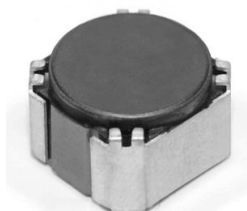


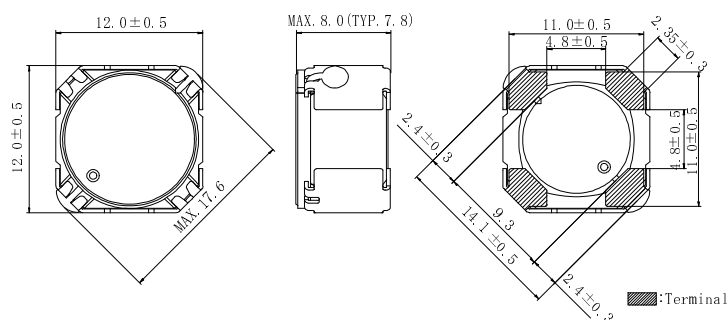
# SMD Power Inductor CDRH12D78/A



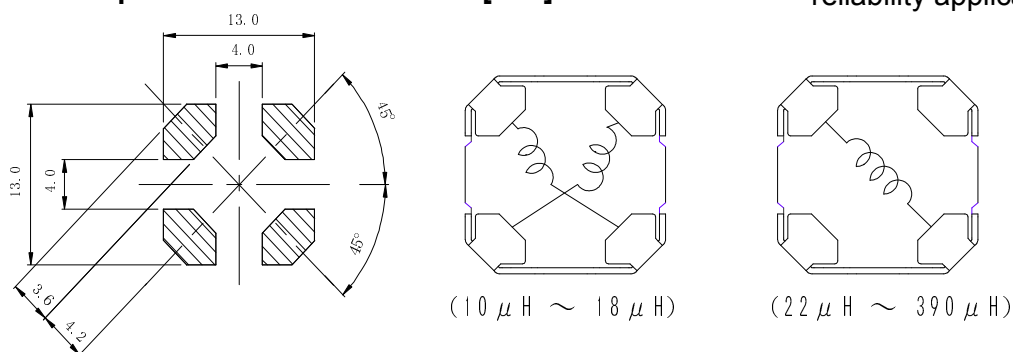
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.5 × 12.5 × 8.0 mm Max.
- Product weight 4.1g(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 (excluding coil's self temperature rise).
- Storage temperature range: -40°C~+85°C
- Solder reflow temperature: 260 °C peak.

## Packaging

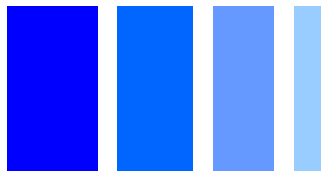
- Carrier tape and reel packaging.
- 13.0" diameter reel
- 500pcs per reel

## Applications

- Automotive and other high temperature, high reliability application.

# SMD Power Inductor

## CDRH12D78/A



### Electrical Characteristics

| Part name           | Stamp | Inductance<br>( $\mu$ H)<br>[within] ※1 | D.C.R. (m $\Omega$ )<br>[Max.].(Typ.)<br>(at 20°C) | Rated current (A)<br>(at 125°C) ※2 |
|---------------------|-------|-----------------------------------------|----------------------------------------------------|------------------------------------|
| CDRH12D78/ANP-100MC | 100M  | 10 $\mu$ H $\pm$ 20%                    | 22(17)                                             | 4.2                                |
| CDRH12D78/ANP-120MC | 120M  | 12 $\mu$ H $\pm$ 20%                    | 24(19)                                             | 4.0                                |
| CDRH12D78/ANP-150MC | 150M  | 15 $\mu$ H $\pm$ 20%                    | 27(21)                                             | 3.7                                |
| CDRH12D78/ANP-180MC | 180M  | 18 $\mu$ H $\pm$ 20%                    | 29(23)                                             | 3.4                                |
| CDRH12D78/ANP-220MC | 220M  | 22 $\mu$ H $\pm$ 20%                    | 44(35)                                             | 2.9                                |
| CDRH12D78/ANP-270MC | 270M  | 27 $\mu$ H $\pm$ 20%                    | 47(37)                                             | 2.7                                |
| CDRH12D78/ANP-330MC | 330M  | 33 $\mu$ H $\pm$ 20%                    | 64(51)                                             | 2.4                                |
| CDRH12D78/ANP-390MC | 390M  | 39 $\mu$ H $\pm$ 20%                    | 68(54)                                             | 2.3                                |
| CDRH12D78/ANP-470MC | 470M  | 47 $\mu$ H $\pm$ 20%                    | 75(60)                                             | 2.1                                |
| CDRH12D78/ANP-560MC | 560M  | 56 $\mu$ H $\pm$ 20%                    | 84(67)                                             | 1.9                                |
| CDRH12D78/ANP-680MC | 680M  | 68 $\mu$ H $\pm$ 20%                    | 97(77)                                             | 1.7                                |
| CDRH12D78/ANP-820MC | 820M  | 82 $\mu$ H $\pm$ 20%                    | 124(99)                                            | 1.6                                |
| CDRH12D78/ANP-101MC | 101M  | 100 $\mu$ H $\pm$ 20%                   | 152(121)                                           | 1.4                                |
| CDRH12D78/ANP-121MC | 121M  | 120 $\mu$ H $\pm$ 20%                   | 197(157)                                           | 1.3                                |
| CDRH12D78/ANP-151MC | 151M  | 150 $\mu$ H $\pm$ 20%                   | 249(199)                                           | 1.2                                |
| CDRH12D78/ANP-181MC | 181M  | 180 $\mu$ H $\pm$ 20%                   | 270(216)                                           | 1.1                                |
| CDRH12D78/ANP-221MC | 221M  | 220 $\mu$ H $\pm$ 20%                   | 308(246)                                           | 1.0                                |
| CDRH12D78/ANP-271MC | 271M  | 270 $\mu$ H $\pm$ 20%                   | 448(358)                                           | 0.86                               |
| CDRH12D78/ANP-331MC | 331M  | 330 $\mu$ H $\pm$ 20%                   | 579(463)                                           | 0.75                               |
| CDRH12D78/ANP-391MC | 391M  | 390 $\mu$ H $\pm$ 20%                   | 730(584)                                           | 0.66                               |

※1. Measuring condition: at 100 kHz.

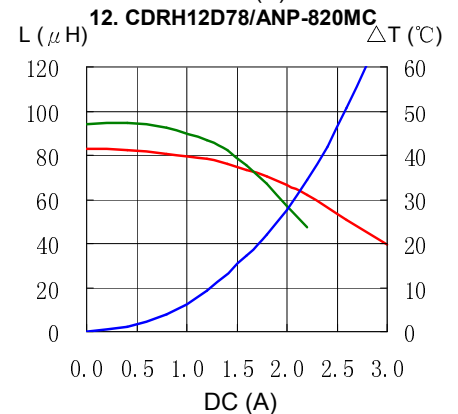
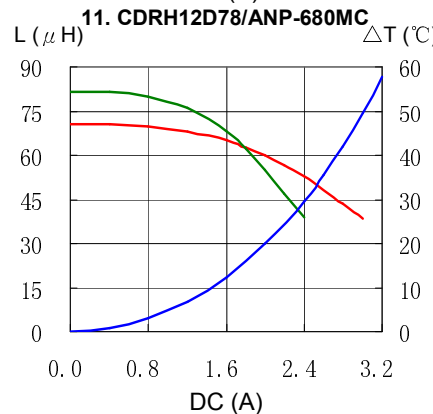
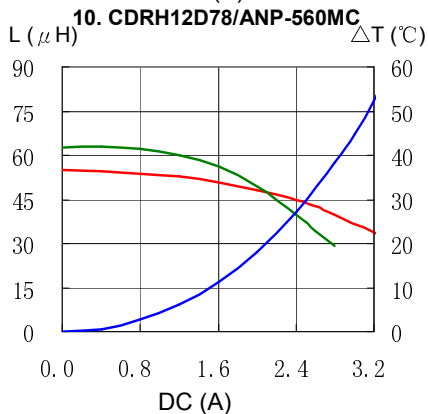
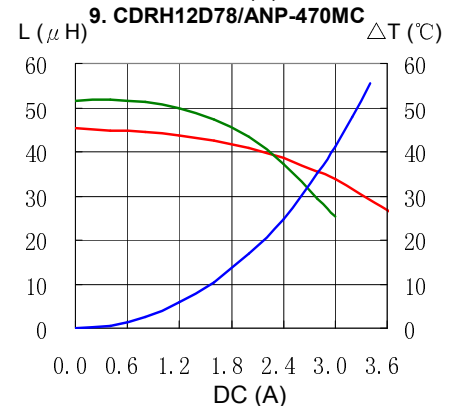
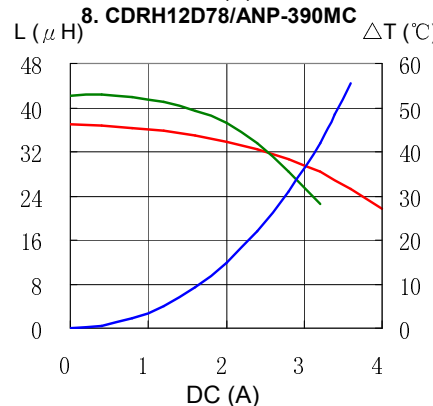
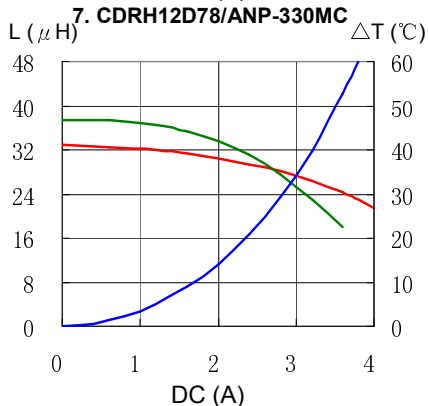
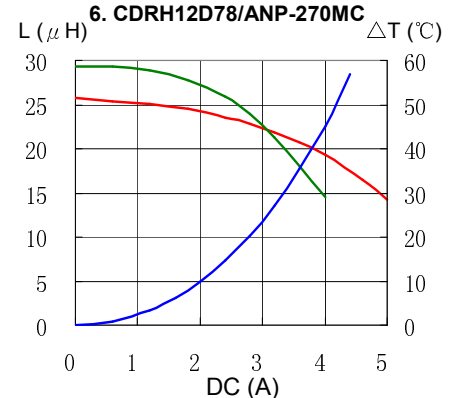
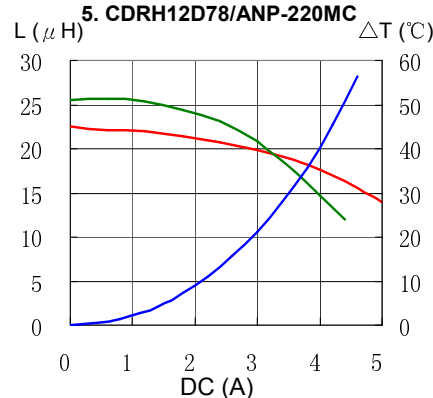
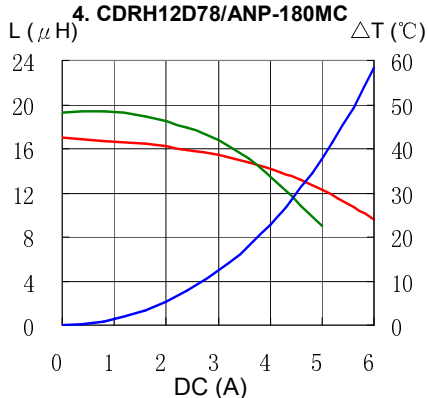
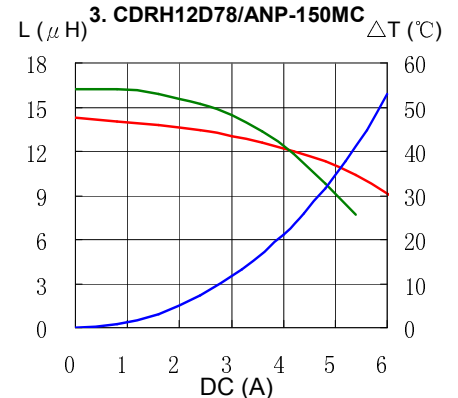
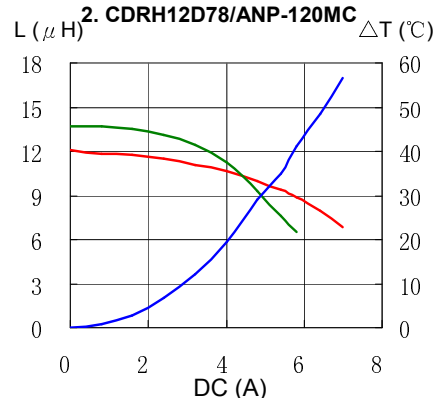
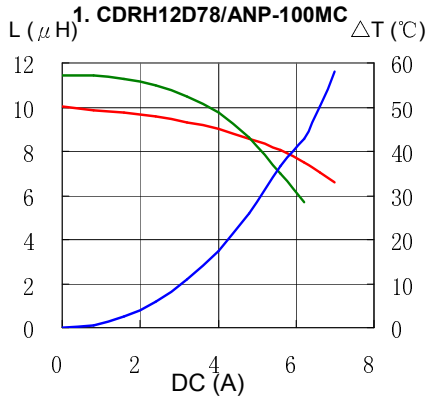
※2. Rated current: The DC current at which the inductance decreases to 65% of its nominal value or when  $\Delta t=30^{\circ}\text{C}$ , whichever is lower .

# SMD Power Inductor CDRH12D78/A



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$

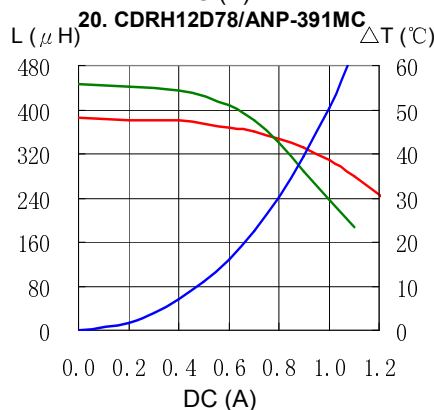
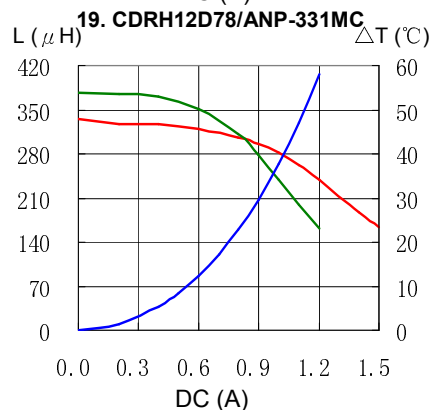
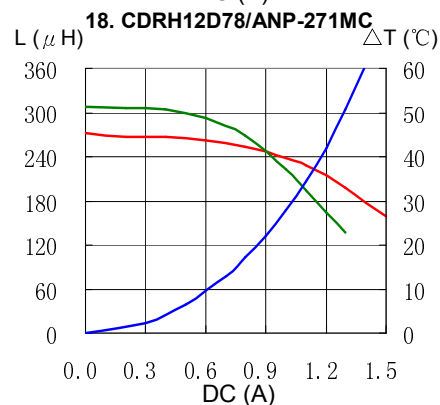
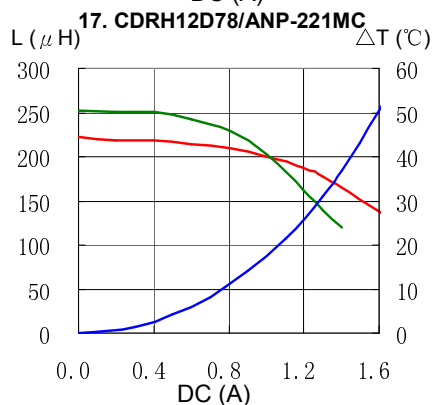
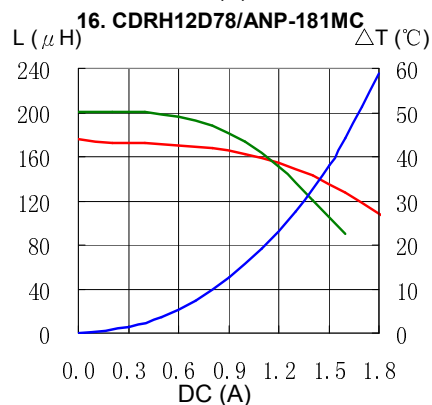
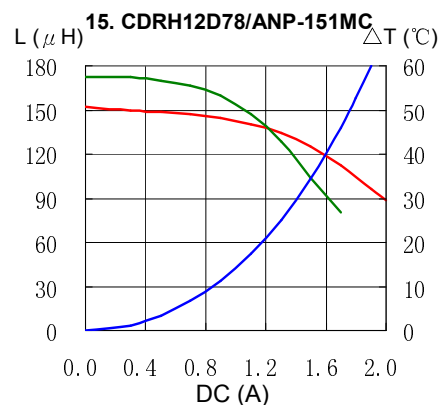
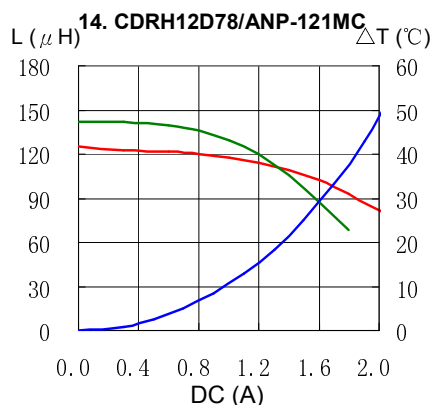
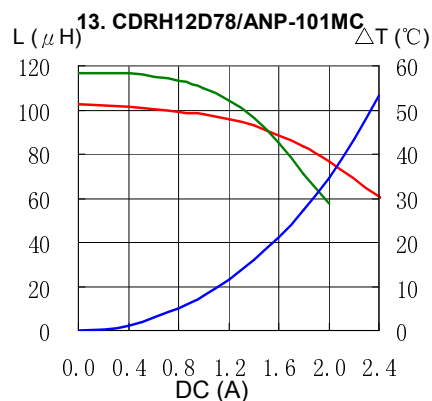


# SMD Power Inductor CDRH12D78/A



## Saturation Current & Temperature Rise Graph

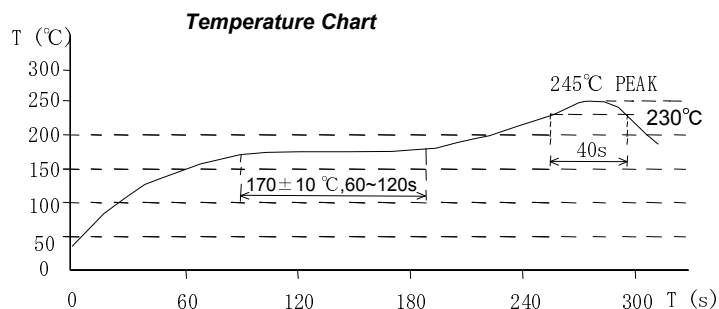
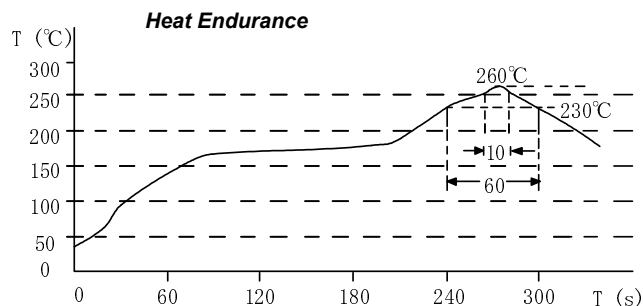
— L (20°C) — L (125°C) —  $\Delta T$



# SMD Power Inductor CDRH12D78/A



## Solder Reflow Condition



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