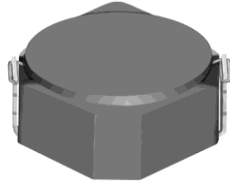


# SMD Power Inductor CDRH3D23



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 3.92 × 3.92 × 2.5 mm Max.
- Product weight: 112mg(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

- Operating temperature range: -40°C ~ +105°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +105°C
- Solder reflow temperature: 260 °C peak.

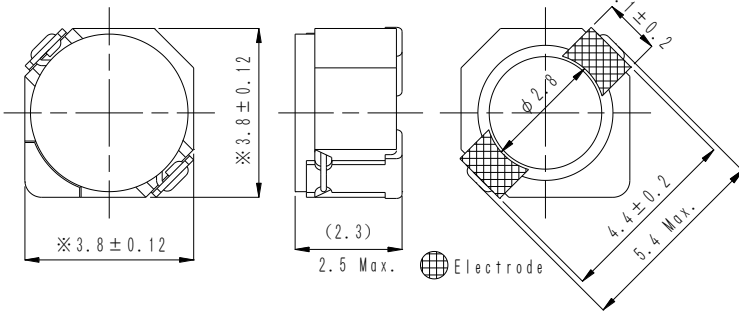
## Packaging

- Carrier tape and reel packaging
- 7.0" diameter reel
- 500pcs per reel

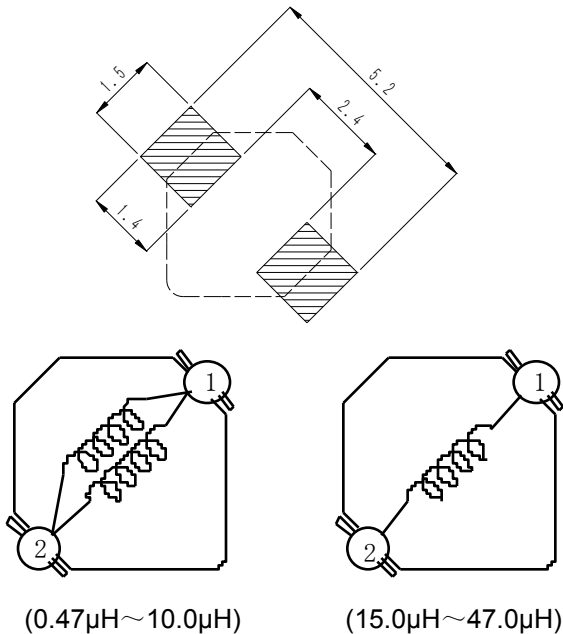
## Applications

- Ideally used in Mobilephone, PDA, MP3, DSC/DVC, etc as DC-DC converter inductors.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



# SMD Power Inductor

## CDRH3D23



### Electrical Characteristics

| Part Name        | Stamp | Inductance<br>( $\mu\text{H}$ )<br>[within] ※1 | D.C.R. (m $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | Saturation Current<br>(A) ※2 |          | Temperature<br>Rise Current<br>(A) ※3 |
|------------------|-------|--|--|------------------------------|----------|---------------------------------------|
|                  |       |  |  | at 20°C                      | at 105°C |                                       |
| CDRH3D23NP-R47NC | A     | 0.47 $\pm$ 30%                                 | 23.5(18.8)                                       | 3.10                         | 2.40     | 3.30                                  |
| CDRH3D23NP-1R0PC | A     | 1.0 $\pm$ 25%                                  | 25.0(20)   | 2.80                         | 2.00     | 3.10                                  |
| CDRH3D23NP-1R5PC | B     | 1.5 $\pm$ 25%                                  | 29.0(24)   | 2.20                         | 1.65     | 2.90                                  |
| CDRH3D23NP-2R2PC | C     | 2.2 $\pm$ 25%                                  | 38.3(31)   | 1.80                         | 1.30     | 2.50                                  |
| CDRH3D23NP-3R3PC | D     | 3.3 $\pm$ 25%                                  | 56.3(45)   | 1.45                         | 1.10     | 2.20                                  |
| CDRH3D23NP-4R7PC | E     | 4.7 $\pm$ 25%                                  | 68.8(55)   | 1.30                         | 0.95     | 1.90                                  |
| CDRH3D23NP-5R6PC | F     | 5.6 $\pm$ 25%                                  | 75.0(60)   | 1.10                         | 0.80     | 1.80                                  |
| CDRH3D23NP-6R8PC | G     | 6.8 $\pm$ 25%                                  | 87.8(72)   | 1.00                         | 0.75     | 1.70                                  |
| CDRH3D23NP-8R2PC | H     | 8.2 $\pm$ 25%                                  | 94.8(77)   | 0.95                         | 0.70     | 1.60                                  |
| CDRH3D23NP-100MC | I     | 10.0 $\pm$ 20%                                 | 117(95)  | 0.85                         | 0.60     | 1.40                                  |
| CDRH3D23NP-150MC | J     | 15.0 $\pm$ 20%                                 | 191(154)   | 0.70                         | 0.50     | 0.85                                  |
| CDRH3D23NP-220MC | K     | 22.0 $\pm$ 20%                                 | 270(219)   | 0.55                         | 0.40     | 0.75                                  |
| CDRH3D23NP-330MC | L     | 33.0 $\pm$ 20%                                 | 381(307)   | 0.50                         | 0.35     | 0.60                                  |
| CDRH3D23NP-470MC | M     | 47.0 $\pm$ 20%                                 | 546(441)   | 0.35                         | 0.25     | 0.55                                  |

※1. Inductance measuring condition: at 100kHz.

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

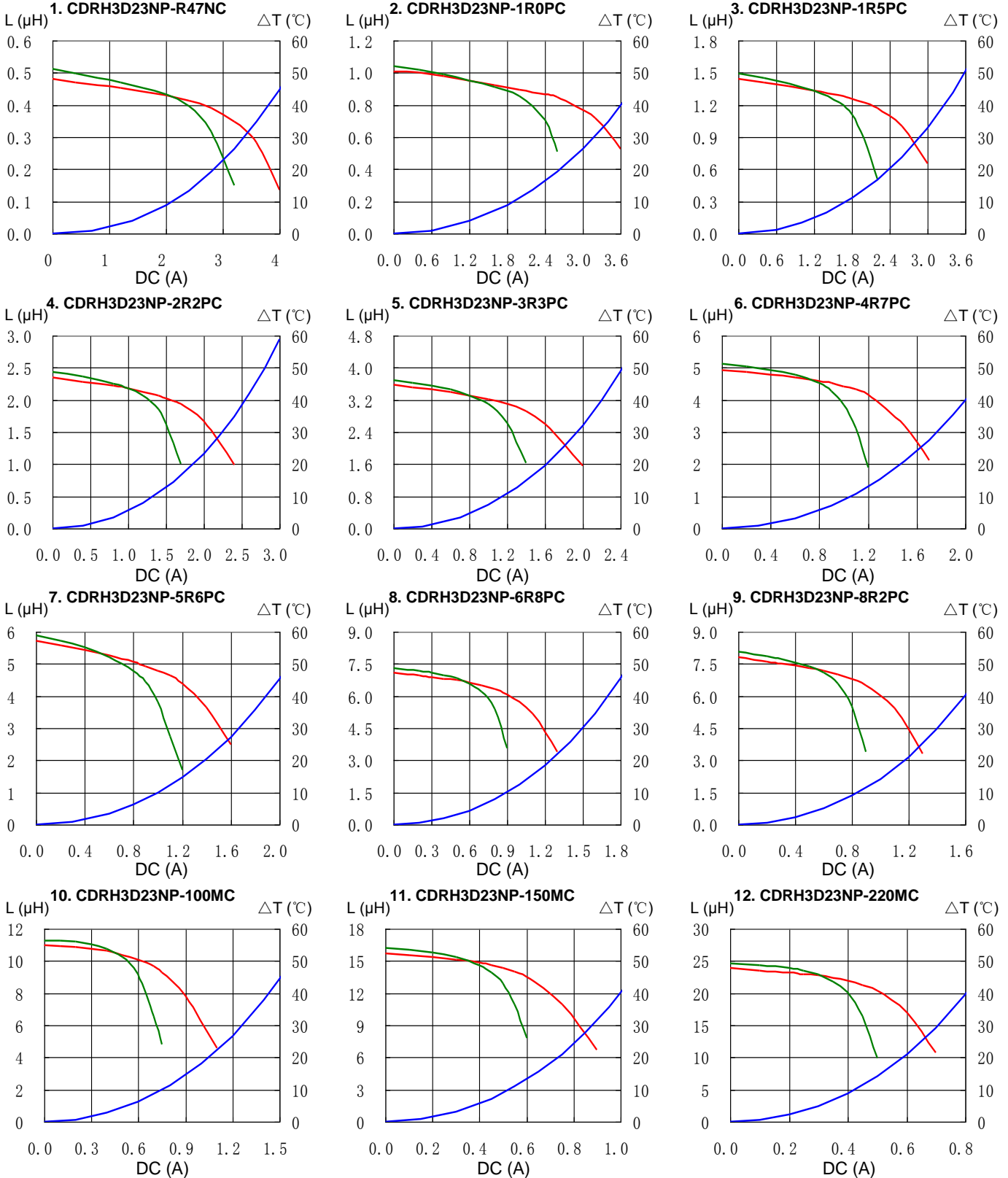
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^\circ\text{C}$  ( $T_a=20^\circ\text{C}$ ).

# SMD Power Inductor CDRH3D23

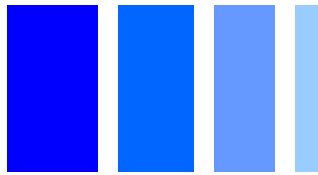


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

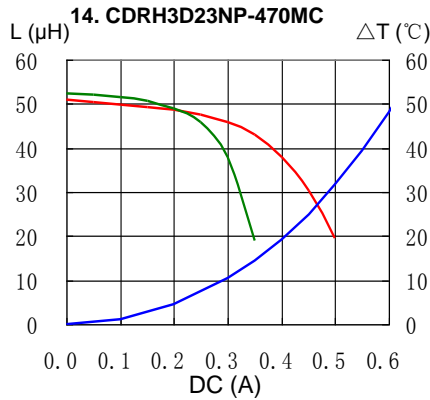
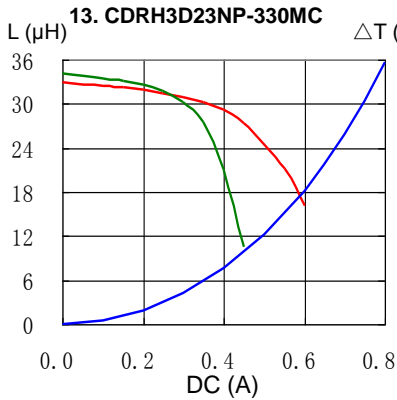


# SMD Power Inductor CDRH3D23



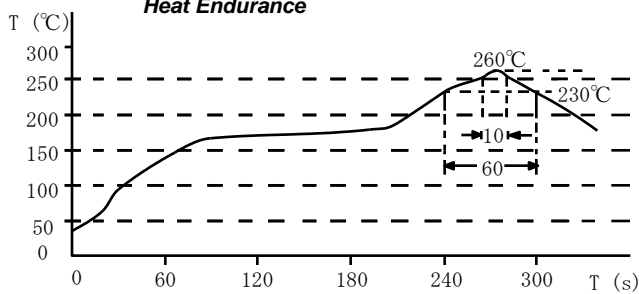
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

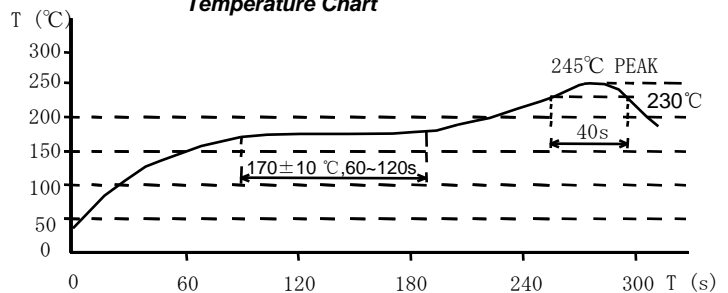


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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