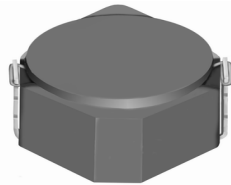


SMD Power Inductor CDRH3D23/HP



Halogen Free



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.
- Halogen Free available.

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.

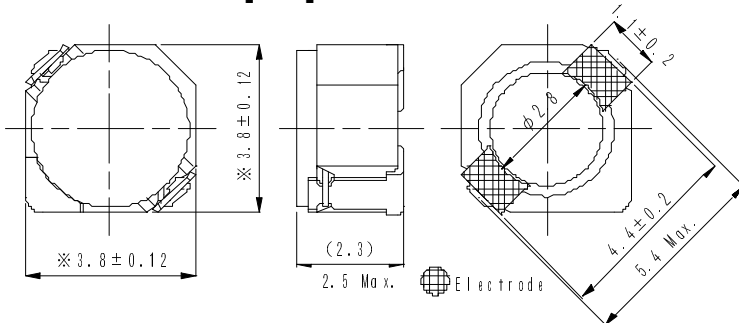
Packaging

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

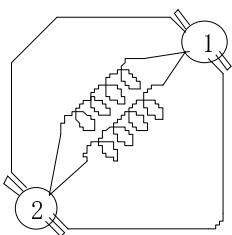
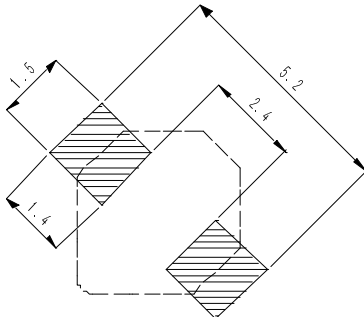
Applications

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

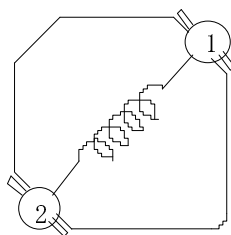
Dimension - [mm]



Land pattern and Schematics - [mm]



(1.2 μH ~ 8.2 μH)



(10.0 μH ~ 47.0 μH)

SMD Power Inductor CDRH3D23/HP



Electrical Characteristics

| Part Name | Stamp | Inductance (μ H) [within] ※1 | D.C.R (m Ω) Max. (Typ.) (at 20°C) | Saturation Current (A) ※2 | | Temperature Rise Current (A) ※3 |
|--------------------|----------|---|---|------------------------------|----------|---------------------------------------|
| | | | | at 20°C | at 105°C | |
| CDRH3D23HPNP-1R2PC | <u>B</u> | 1.2 \pm 25% | 40.4(32.3) | 3.52 | 3.00 | 2.55 |
| CDRH3D23HPNP-2R2PC | <u>E</u> | 2.2 \pm 25% | 50.3(40.2) | 2.6 | 2.24 | 2.25 |
| CDRH3D23HPNP-2R7PC | <u>F</u> | 2.7 \pm 25% | 62.3(49.8) | 2.4 | 2.08 | 2.0 |
| CDRH3D23HPNP-3R3PC | <u>G</u> | 3.3 \pm 25% | 70.0(56.0) | 2.2 | 1.9 | 1.85 |
| CDRH3D23HPNP-4R7PC | <u>J</u> | 4.7 \pm 25% | 95.5(76.4) | 1.84 | 1.57 | 1.60 |
| CDRH3D23HPNP-5R6PC | <u>K</u> | 5.6 \pm 25% | 102(81.2) | 1.66 | 1.44 | 1.50 |
| CDRH3D23HPNP-6R8PC | <u>L</u> | 6.8 \pm 25% | 136(109) | 1.52 | 1.30 | 1.30 |
| CDRH3D23HPNP-8R2PC | <u>N</u> | 8.2 \pm 25% | 145(116) | 1.36 | 1.18 | 1.25 |
| CDRH3D23HPNP-100MC | A | 10 \pm 20% | 198(158) | 1.28 | 1.08 | 1.02 |
| CDRH3D23HPNP-120MC | B | 12 \pm 20% | 249(199) | 1.14 | 0.97 | 0.95 |
| CDRH3D23HPNP-150MC | C | 15 \pm 20% | 276(221) | 1.02 | 0.88 | 0.90 |
| CDRH3D23HPNP-220MC | E | 22 \pm 20% | 383(306) | 0.80 | 0.65 | 0.70 |
| CDRH3D23HPNP-330MC | G | 33 \pm 20% | 555(444) | 0.68 | 0.58 | 0.58 |
| CDRH3D23HPNP-470MC | J | 47 \pm 20% | 798(638) | 0.56 | 0.48 | 0.45 |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 70% of it's nominal value.

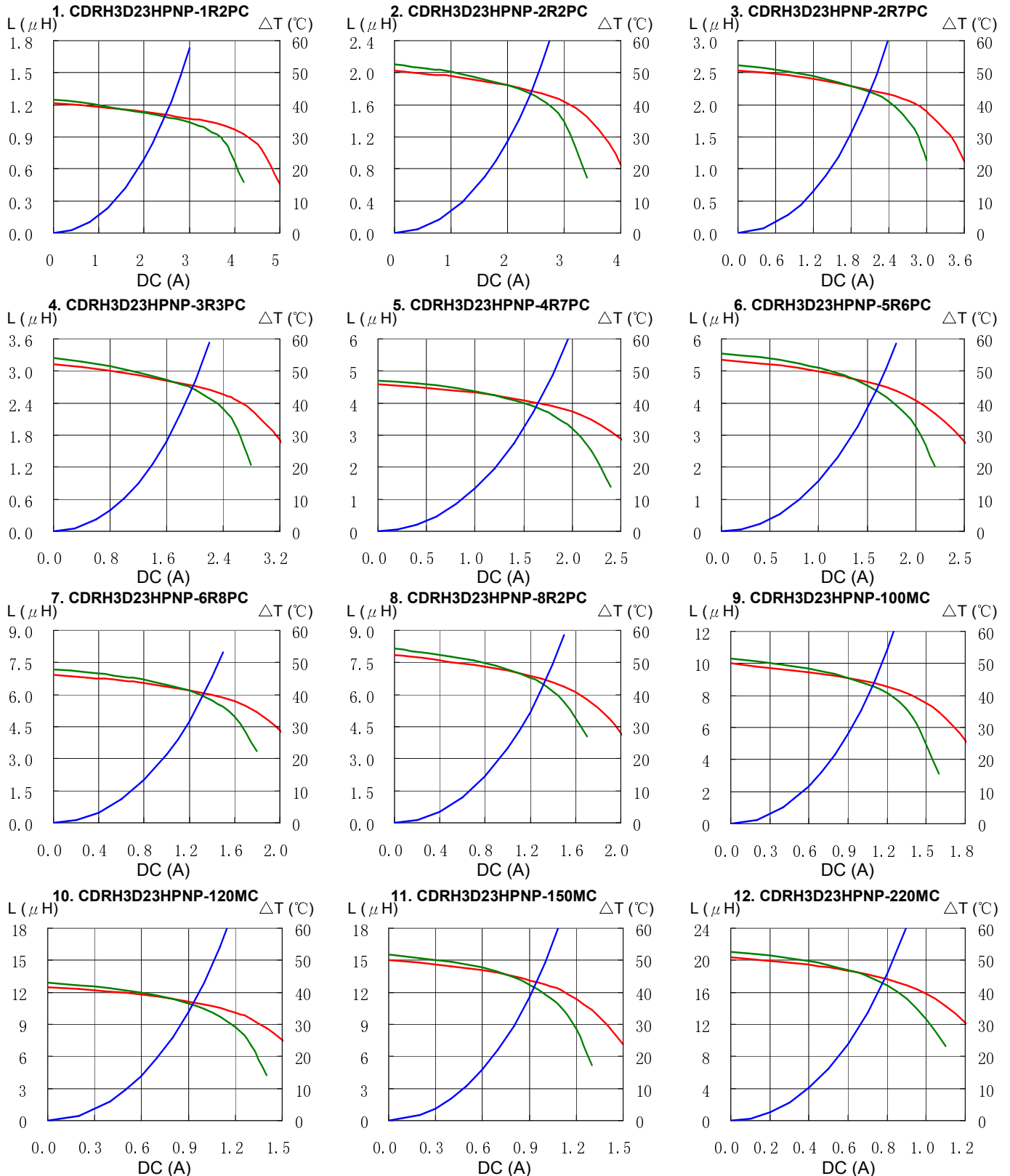
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

SMD Power Inductor CDRH3D23/HP



Saturation Current & Temperature Rise Graph

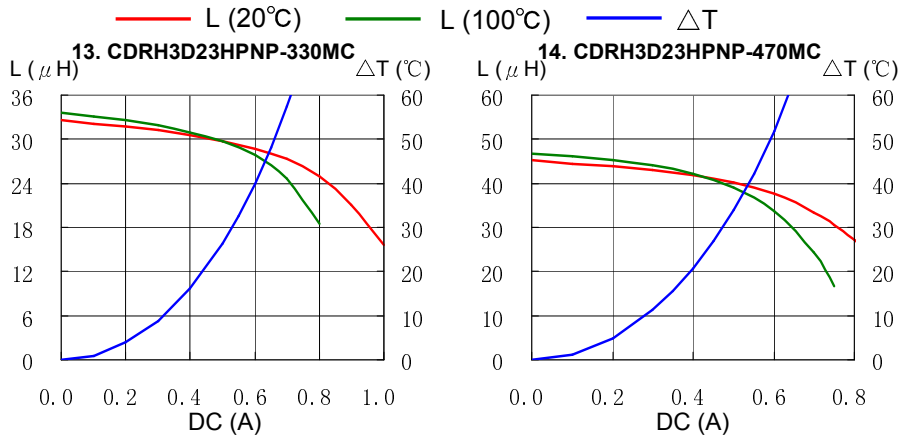
— L (20°C) — L (100°C) — ΔT



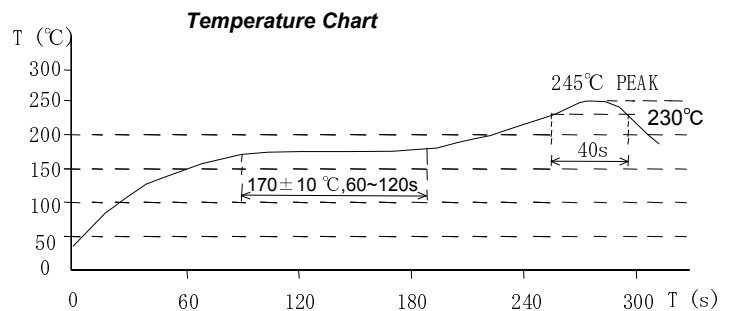
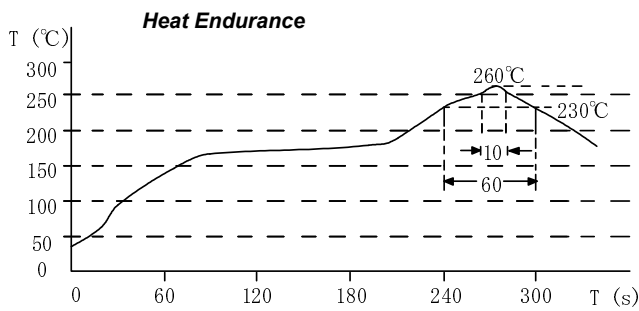
SMD Power Inductor CDRH3D23/HP



Saturation Current & Temperature Rise Graph



Solder Reflow Condition



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