



**THE DATASHEET OF
CDRH5D28RHPNP-220MC**



SMD Power Inductor CDRH5D28R/HP



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 6.3 × 6.2 × 3.0 mm Max.
- Product weight: 0.4g(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.

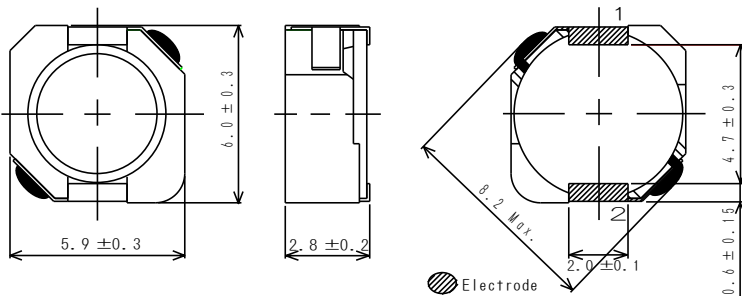
Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 2000pcs per reel

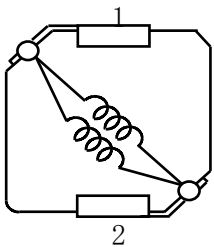
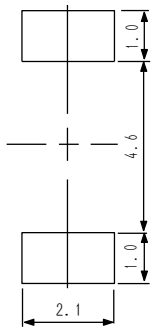
Applications

- Ideally used in Notebook PC, HDD, DSC/DVC, LCD TV, Game machine etc. as DC-DC converter inductors.

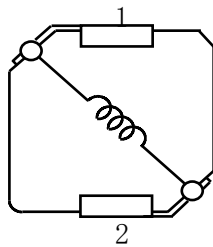
Dimension - [mm]



Land pattern and Schematics - [mm]



(2.2μH ~ 10μH)



(12μH ~ 47μH)

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Electrical Characteristics

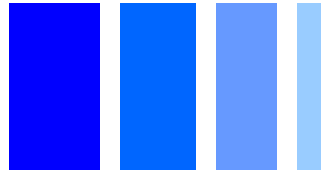
| Part Name | Stamp | Inductance (μH) [within] ※1 | D.C.R. (m Ω) [Max.] (Typ.) (at 20°C) | Saturation Current (A) ※2 | | Temperature Rise Current (A) ※3 |
|---------------------|-------|--|--|------------------------------|----------|---------------------------------------|
| | | | | at 20°C | at 105°C | |
| CDRH5D28RHPNP-2R2NC | 2R2 | 2.2 \pm 25% | 24.8(19.8) | 5.50 | 4.50 | 3.80 |
| CDRH5D28RHPNP-3R0NC | 3R0 | 3.0 \pm 25% | 31.8(25.4) | 4.70 | 3.90 | 3.35 |
| CDRH5D28RHPNP-4R7NC | 4R7 | 4.7 \pm 25% | 43.1(34.5) | 3.70 | 3.05 | 2.80 |
| CDRH5D28RHPNP-5R6NC | 5R6 | 5.6 \pm 25% | 47.9(38.3) | 3.30 | 2.65 | 2.70 |
| CDRH5D28RHPNP-6R8NC | 6R8 | 6.8 \pm 25% | 61.3(49.0) | 3.10 | 2.55 | 2.50 |
| CDRH5D28RHPNP-8R2NC | 8R2 | 8.2 \pm 25% | 88.4(70.7) | 2.70 | 2.30 | 1.90 |
| CDRH5D28RHPNP-100MC | 100 | 10.0 \pm 20% | 93.0(74.4) | 2.45 | 2.05 | 1.85 |
| CDRH5D28RHPNP-120MC | 120 | 12.0 \pm 20% | 115(92.1) | 2.30 | 2.00 | 1.60 |
| CDRH5D28RHPNP-150MC | 150 | 15.0 \pm 20% | 144(115) | 2.05 | 1.65 | 1.40 |
| CDRH5D28RHPNP-180MC | 180 | 18.0 \pm 20% | 161(128) | 1.90 | 1.55 | 1.35 |
| CDRH5D28RHPNP-220MC | 220 | 22.0 \pm 20% | 213(171) | 1.75 | 1.42 | 1.20 |
| CDRH5D28RHPNP-270MC | 270 | 27.0 \pm 20% | 277(221) | 1.60 | 1.30 | 1.00 |
| CDRH5D28RHPNP-330MC | 330 | 33.0 \pm 20% | 314(251) | 1.35 | 1.10 | 0.90 |
| CDRH5D28RHPNP-470MC | 470 | 47.0 \pm 20% | 379(303) | 1.20 | 1.00 | 0.85 |

※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.

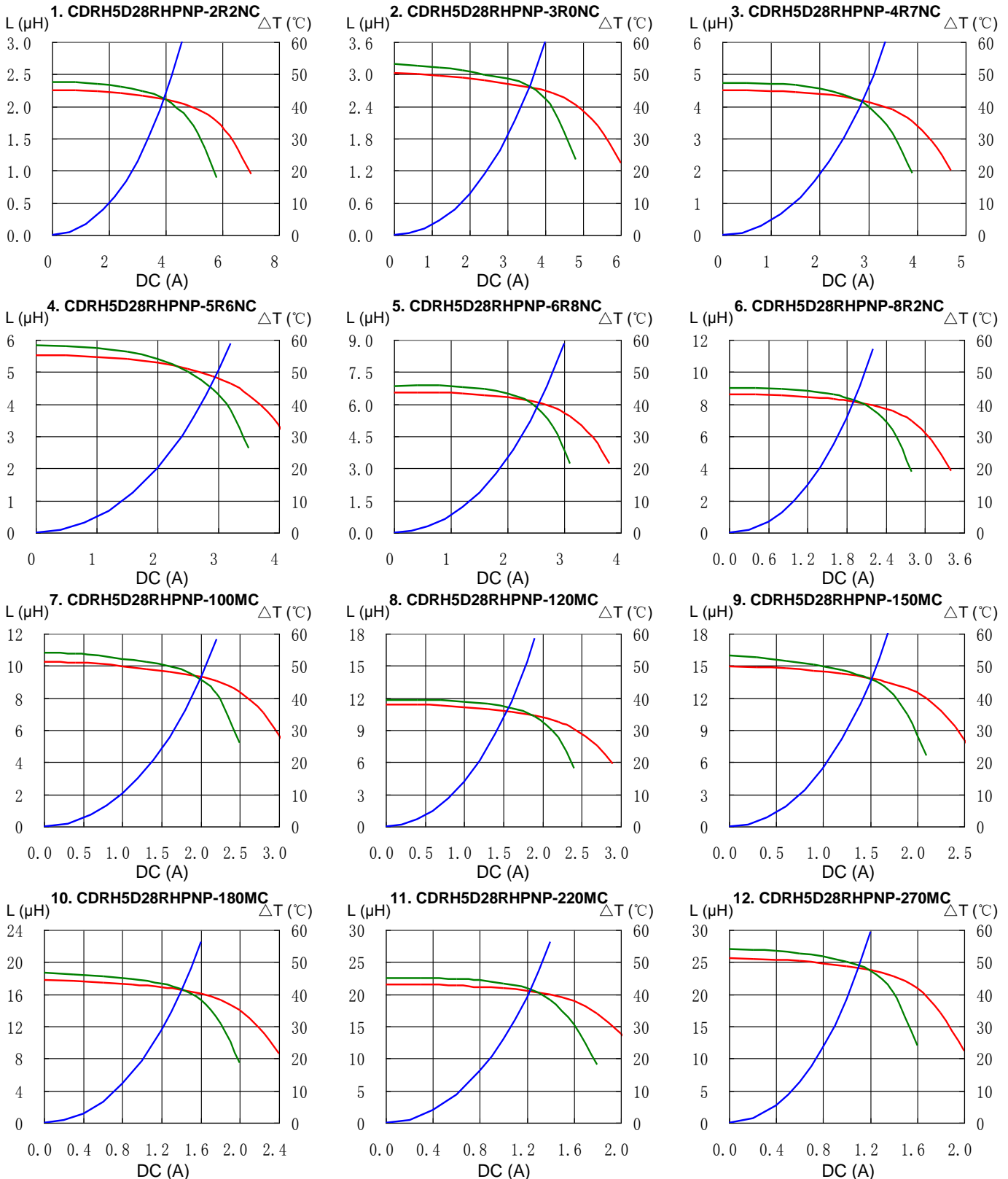
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$).

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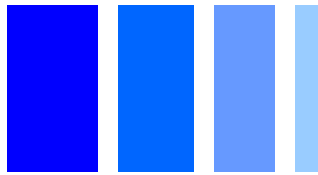


Saturation Current & Temperature Rise Graph

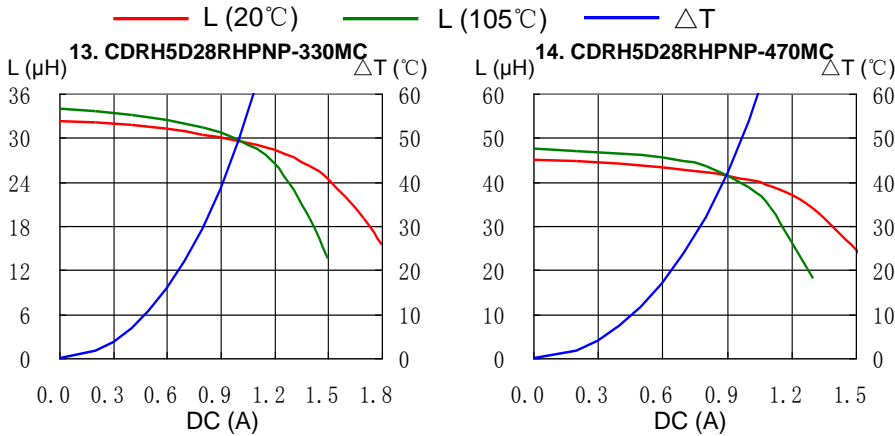
— L (20°C) — L (105°C) — ΔT



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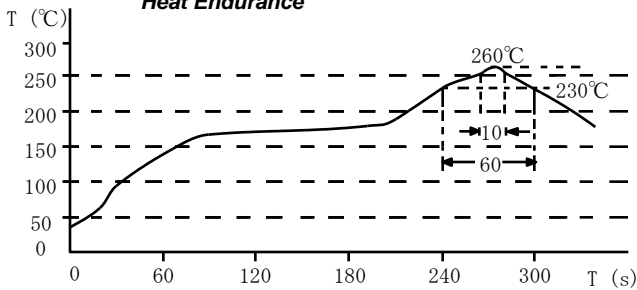


Saturation Current & Temperature Rise Graph

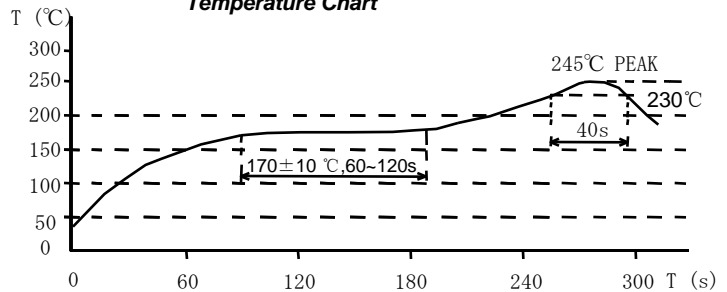


Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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