

Type: CDH38D09, CDH38D09/SHP, CDH38D09/SLD

♦ Product Description

- 4.0×4.0mm Max.(L×W), 1.0mm Max. Height.
- · Inductance range: 1.2~22 µ H (CDH38D09);

2.5~22 μ H (CDH38D09/SHP);2.7~33 μ H(CDH38D09/SLD),

Rated current range:0.45~1.35A (CDH38D09);

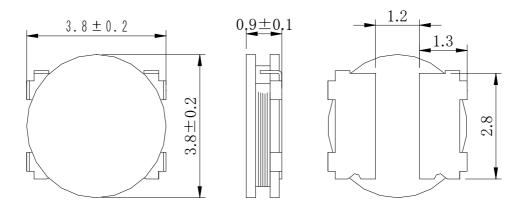
 $0.52{\sim}1.6$ A (CDH38D09/SHP); $0.3{\sim}1.0$ 8A (CDH38D09/SLD)

· Custom design is available.

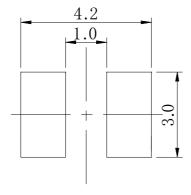
◆ Feature

- · Magnetically unshielded construction.
- Ideally used in Mobilephone, PDA, MP3, DSC/DVC, HDD, etc as DC-DC Converter inductors.
- · RoHS Compliance

Dimensions (mm)



◆ Land Pattern (mm)







Type: CDH38D09, CDH38D09/SHP, CDH38D09/SLD

◆ Specification(CDH38D09)

| Part Name ** | Stamp | Inductance (| D.C.R.(Ω) Max.(Typ.) (20℃) | Saturation Current (A) %1-1 | | Temperature Rise current |
|------------------|-------|-----------------|-----------------------------------|-----------------------------|------|-----------------------------|
| * | | | | 20 ℃ | 105℃ | (A) ※2 |
| CDH38D09NP-1R2M□ | 1R2 | 1.2±20% | 0.14(0.11) | 1.90 | 1.60 | 1.35 |
| CDH38D09NP-1R5M□ | 1R5 | 1.5±20% | 0.16(0.13) | 1.70 | 1.40 | 1.25 |
| CDH38D09NP-2R2M□ | 2R2 | 2.2±20% | 0.19(0.15) | 1.50 | 1.25 | 1.15 |
| CDH38D09NP-2R7M□ | 2R7 | 2.7±20% | 0.21(0.17) | 1.35 | 1.15 | 1.10 |
| CDH38D09NP-3R3M□ | 3R3 | 3.3±20% | 0.24(0.19) | 1.25 | 1.00 | 1.00 |
| CDH38D09NP-4R7M□ | 4R7 | 4.7±20% | 0.30(0.24) | 1.10 | 0.85 | 0.95 |
| CDH38D09NP-6R8M□ | 6R8 | 6.8±20% | 0.39(0.31) | 0.90 | 0.72 | 0.85 |
| CDH38D09NP-8R2M□ | 8R2 | 8.2±20% | 0.50(0.40) | 0.80 | 0.65 | 0.75 |
| CDH38D09NP-100M□ | 100 | 10.0±20% | 0.58(0.47) | 0.7 | 0.60 | 0.70 |
| CDH38D09NP-150M□ | 150 | 15.0±20% | 0.87(0.69) | 0.60 | 0.50 | 0.55 |
| CDH38D09NP-220M□ | 220 | $22.0 \pm 20\%$ | 1.14(0.91) | 0.50 | 0.40 | 0.45 |

◆Specification (CDH38D09/SHP)

| Part Name ※ | Stamp | Inductance (| D.C.R.(mΩ) (20℃) | Saturation Current (A) %1-2 | Temperature Rise current (A) ※2 |
|---------------------|-------|-----------------|---------------------|-----------------------------------|---------------------------------------|
| CDH38D09SHPNP-2R5M□ | 2R5 | 2.5±20% | 110±20% | 1.60 | 1.6 |
| CDH38D09SHPNP-3R3M□ | 3R3 | $3.3 \pm 20\%$ | 132±20% | 1.48 | 1.45 |
| CDH38D09SHPNP-3R8M□ | 3R8 | $3.8 \pm 20\%$ | 165±20% | 1.30 | 1.30 |
| CDH38D09SHPNP-4R7M□ | 4R7 | $4.7 \pm 20\%$ | 185±20% | 1.24 | 1.22 |
| CDH38D09SHPNP-5R4M□ | 5R4 | 5.4±20% | 245±20% | 1.08 | 1.08 |
| CDH38D09SHPNP-6R0M□ | 6R0 | $6.0\pm20\%$ | 270±20% | 1.04 | 1.00 |
| CDH38D09SHPNP-7R4M□ | 7R4 | $7.4 \pm 20\%$ | 335±20% | 0.88 | 0.9 |
| CDH38D09SHPNP-8R2M□ | 8R2 | 8.2±20% | 365±20% | 0.84 | 0.85 |
| CDH38D09SHPNP-100M□ | 100 | 10±20% | 472±20% | 0.75 | 0.78 |
| CDH38D09SHPNP-120M□ | 120 | 12±20% | 543±20% | 0.66 | 0.74 |
| CDH38D09SHPNP-150M□ | 150 | 15±20% | 612±20% | 0.6 | 0.68 |
| CDH38D09SHPNP-180M□ | 180 | 18±20% | 896±20% | 0.56 | 0.55 |
| CDH38D09SHPNP-220M□ | 220 | 22±20% | 983±20% | 0.52 | 0.53 |



Type: CDH38D09, CDH38D09/SHP, CDH38D09/SLD

◆ Specification (CDH38D09/SLD)

| Part Name ※ | Stamp | Inductance (µ H) 100kHz/1V | D.C.R.(mΩ) (20℃) | Saturation Current (A) ※1-2 | Temperature Rise current (A) ※2 |
|---------------------|-------|-----------------------------------|---------------------|-----------------------------------|---------------------------------------|
| CDH38D09SLDNP-2R7M□ | 2R7 | 2.7±20% | 98±20% | 1.08 | 1.70 |
| CDH38D09SLDNP-3R3M□ | 3R3 | 3.3±20% | 110±20% | 0.90 | 1.60 |
| CDH38D09SLDNP-3R9M□ | 3R9 | $3.9 \pm 20\%$ | 125±20% | 0.80 | 1.48 |
| CDH38D09SLDNP-4R7M□ | 4R7 | 4.7±20% | 140±20% | 0.76 | 1.40 |
| CDH38D09SLDNP-5R4M□ | 5R4 | 5.4±20% | 175±20% | 0.74 | 1.20 |
| CDH38D09SLDNP-6R4M□ | 6R4 | 6.4±20% | 195±20% | 0.70 | 1.16 |
| CDH38D09SLDNP-6R8M□ | 6R8 | 6.8±20% | 210±20% | 0.66 | 1.12 |
| CDH38D09SLDNP-8R2M□ | 8R2 | 8.2±20% | 274±20% | 0.60 | 0.98 |
| CDH38D09SLDNP-100M□ | 100 | 10±20% | 320±20% | 0.57 | 0.92 |
| CDH38D09SLDNP-120M□ | 120 | 12±20% | 385±20% | 0.50 | 0.85 |
| CDH38D09SLDNP-150M□ | 150 | 15±20% | 439±20% | 0.46 | 0.78 |
| CDH38D09SLDNP-180M□ | 180 | 18±20% | 588±20% | 0.42 | 0.68 |
| CDH38D09SLDNP-220M□ | 220 | 22±20% | 650±20% | 0.37 | 0.62 |
| CDH38D09SLDNP-270M□ | 270 | 27±20% | 930±20% | 0.33 | 0.55 |
| CDH38D09SLDNP-330M□ | 330 | 33±20% | 1049±20% | 0.30 | 0.50 |

X Description of part name

| CDH38D09SHPNP-2R5M | <u> </u> | В | Box |
|--------------------|----------|---|--------------|
| | | С | Carrier Tape |

X1-1. Saturation Current: The DC current at which the inductance decreases to 65% of its nominal value.

X1-2. Saturation Current: The DC current at which the inductance decreases to 70% of its nominal value.

 $[\]times$ 2 Temperature rise current: The DC current at which the temperature rise is $\triangle t = 40^{\circ}\text{C}(Ta = 20^{\circ}\text{C})$

Mouser Electronics

Authorized Distributor

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Sumida:

<u>CDH38D09NP-2R2MC</u> <u>CDH38D09NP-100MC</u> <u>CDH38D09NP-4R7MC</u> <u>CDH38D09NP-3R3MC</u> <u>CDH38D09NP-3R3MC</u> <u>CDH38D09NP-1R2MC</u> <u>CDH38D09NP-1R2MC</u> <u>CDH38D09NP-220MC</u> <u>CDH38D09NP-6R8MC</u> CDH38D09NP-1R5MC CDH38D09NP-150MC