

# CDRH38D16RLDNP-470MC Datasheet



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|                              |  |
|------------------------------|--|
| DiGi Electronics Part Number | CDRH38D16RLDNP-470MC-DG  |
| Manufacturer                 | <a href="#">Sumida America Components Inc.</a>                               |
| Manufacturer Product Number  | CDRH38D16RLDNP-470MC   |
| Description                  | INDUCTOR   |
| Detailed Description         | 47 $\mu$ H Shielded Drum Core, Wirewound Inductor 650 mA 490mOhm Nonstandard |



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## Purchase and inquiry

Manufacturer Product Number:

CDRH38D16RLDNP-470MC

Series:

CDRH38D16RLD

Type:

Drum Core, Wirewound

Inductance:

47  $\mu$ H

Current Rating (Amps):

650 mA

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.071" (1.80mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 20%

Current - Saturation (Isat):

220mA

DC Resistance (DCR):

490mOhm

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 105°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.161" L x 0.150" W (4.10mm x 3.80mm)

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

# SMD Power Inductor

## CDRH38D16R/LD



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 4.2 × 3.95 × 1.8 mm Max.
- Product weight: 85mg(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.

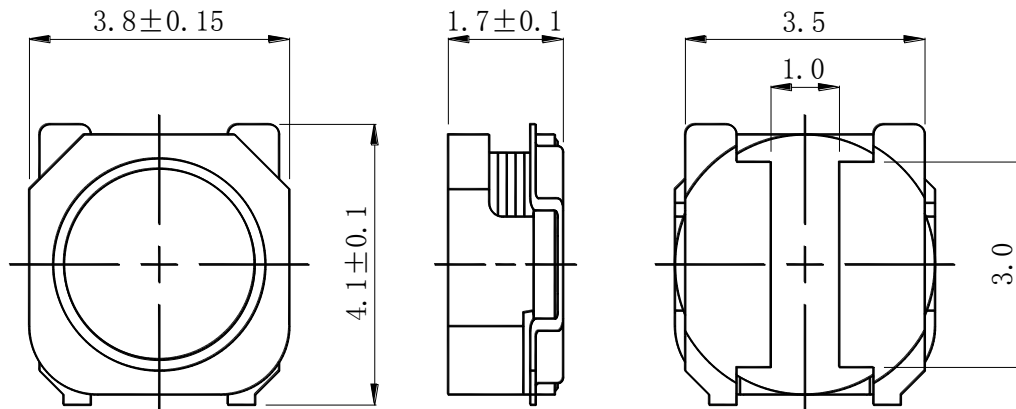
### Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 3000pcs per reel

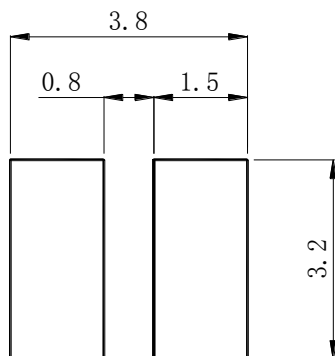
### Applications

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

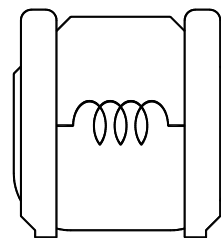
### Dimension - [mm]



### Recommended Land pattern - [mm]



### Connection (Bottom view)



Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.



# SMD Power Inductor

## CDRH38D16R/LD



### Electrical Characteristics

| Part No.             | Stamp | Inductance<br>( $\mu$ H) [Within]<br>※1 | D.C.R. (m $\Omega$ )<br>[Within]<br>(at20°C) | Saturation current<br>(A) ※2 |           | Temperature<br>rise<br>Current (A) ※3 |
|----------------------|-------|---|--|------------------------------|-----------|---------------------------------------|
|                      |       |   |  | (at20°C)                     | (at105°C) |                                       |
| CDRH38D16RLDNP-R90NC | A     | 0.90 $\pm$ 30%                          | 18 $\pm$ 25%                                 | 1.54                         | 1.31      | 3.80                                  |
| CDRH38D16RLDNP-1R6NC | B     | 1.6 $\pm$ 30%                           | 25 $\pm$ 25%                                 | 1.14                         | 0.99      | 3.15                                  |
| CDRH38D16RLDNP-2R2NC | C     | 2.2 $\pm$ 30%                           | 30 $\pm$ 25%                                 | 1.01                         | 0.88      | 3.00                                  |
| CDRH38D16RLDNP-3R3MC | D     | 3.3 $\pm$ 20%                           | 37 $\pm$ 25%                                 | 0.81                         | 0.70      | 2.60                                  |
| CDRH38D16RLDNP-4R7MC | E     | 4.7 $\pm$ 20%                           | 55 $\pm$ 25%                                 | 0.69                         | 0.59      | 2.00                                  |
| CDRH38D16RLDNP-6R8MC | F     | 6.8 $\pm$ 20%                           | 75 $\pm$ 25%                                 | 0.56                         | 0.49      | 1.75                                  |
| CDRH38D16RLDNP-100MC | G     | 10 $\pm$ 20%                            | 104 $\pm$ 20%                                | 0.47                         | 0.40      | 1.45                                  |
| CDRH38D16RLDNP-150MC | H     | 15 $\pm$ 20%                            | 163 $\pm$ 20%                                | 0.36                         | 0.32      | 1.13                                  |
| CDRH38D16RLDNP-220MC | J     | 22 $\pm$ 20%                            | 248 $\pm$ 20%                                | 0.32                         | 0.28      | 0.90                                  |
| CDRH38D16RLDNP-330MC | K     | 33 $\pm$ 20%                            | 351 $\pm$ 20%                                | 0.26                         | 0.23      | 0.75                                  |
| CDRH38D16RLDNP-470MC | L     | 47 $\pm$ 20%                            | 490 $\pm$ 20%                                | 0.22                         | 0.19      | 0.65                                  |
| CDRH38D16RLDNP-680MC | M     | 68 $\pm$ 20%                            | 867 $\pm$ 20%                                | 0.18                         | 0.15      | 0.45                                  |
| CDRH38D16RLDNP-101MC | N     | 100 $\pm$ 20%                           | 1335 $\pm$ 20%                               | 0.15                         | 0.12      | 0.35                                  |

※1 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  $\Delta t=40^{\circ}\text{C}$ ( $T_a=20^{\circ}\text{C}$ ).

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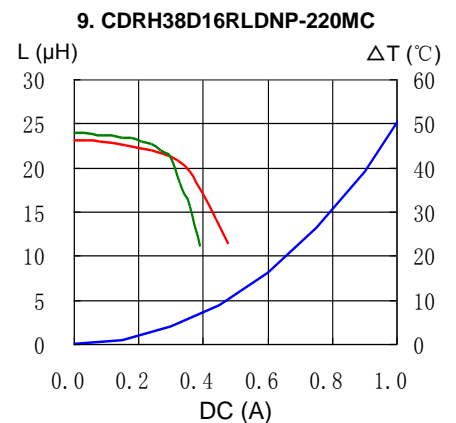
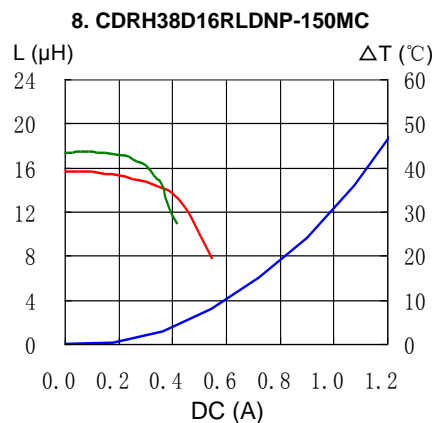
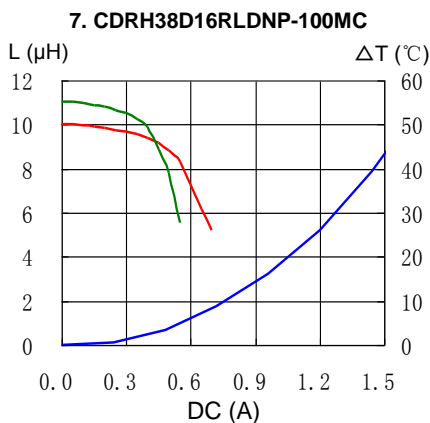
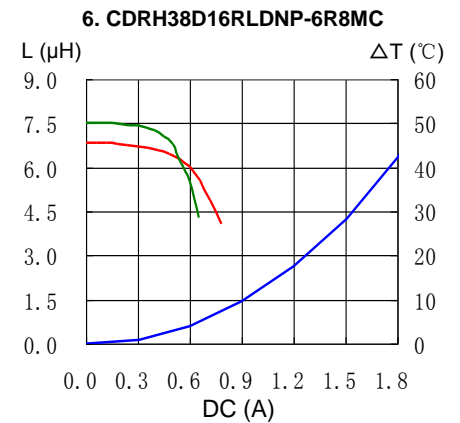
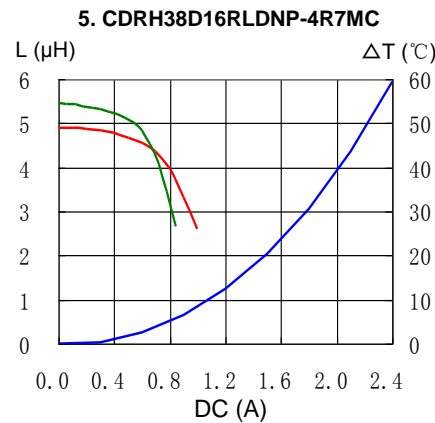
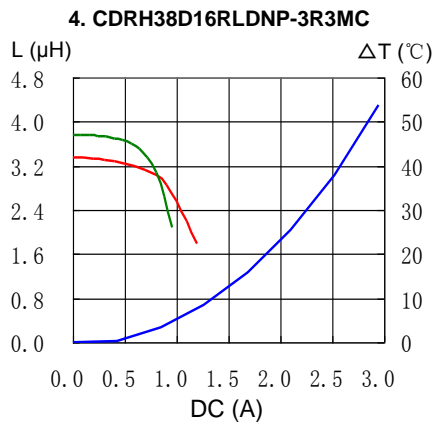
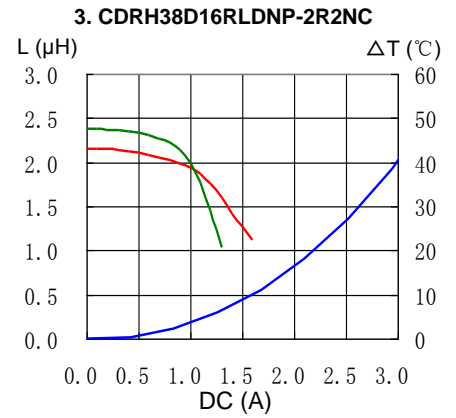
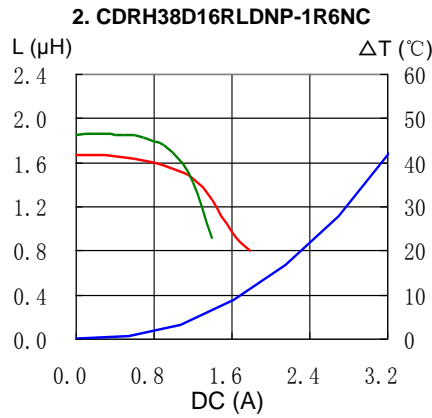
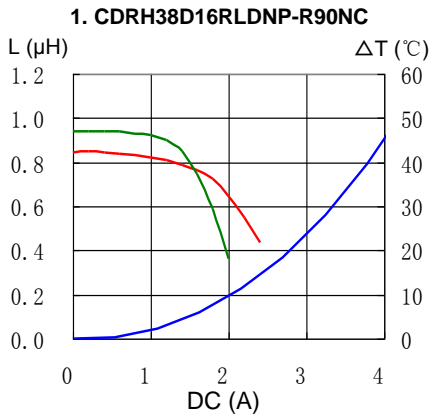
# SMD Power Inductor

## CDRH38D16R/LD



### Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



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# SMD Power Inductor

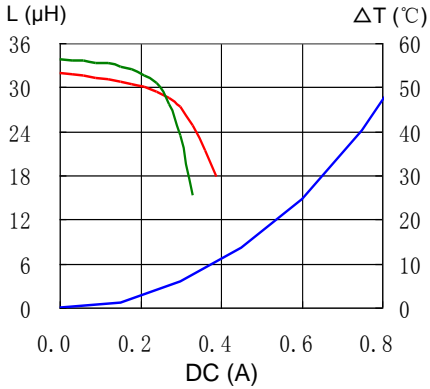
## CDRH38D16R/LD



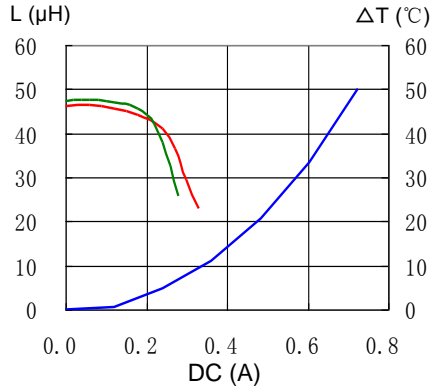
### Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT

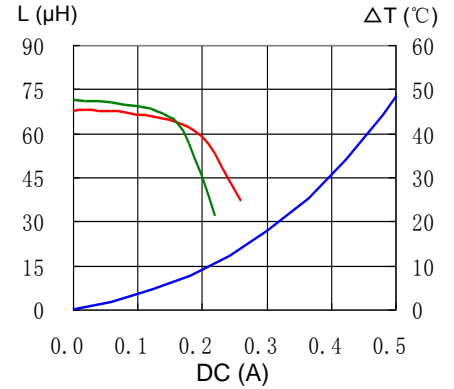
10. CDRH38D16RLDNP-330MC



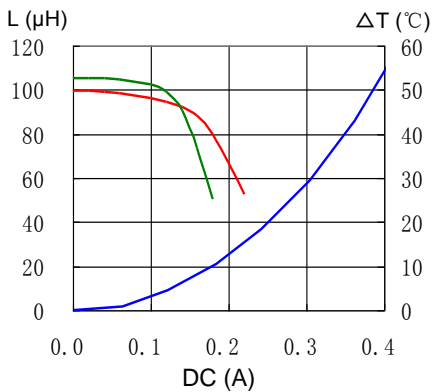
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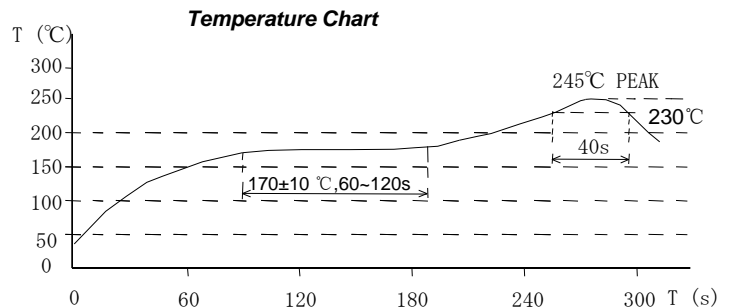
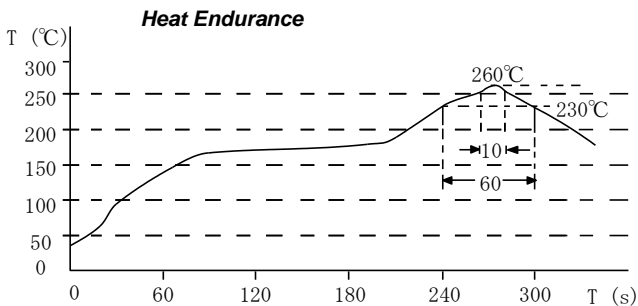
12. CDRH38D16RLDNP-680MC



13. CDRH38D16RLDNP-101MC



### Solder Reflow Condition



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