

# CDMC60D28T150NP-R82MC Datasheet



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|                              |   |
|------------------------------|---|
| DiGi Electronics Part Number | CDMC60D28T150NP-R82MC-DG  |
| Manufacturer                 | <a href="#">Sumida America Components Inc.</a>                  |
| Manufacturer Product Number  | CDMC60D28T150NP-R82MC   |
| Description                  | INDUCTOR  |
| Detailed Description         | 820 nH Shielded Molded Inductor 11.5 A 7.92mOhm Max Nonstandard |



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## Purchase and inquiry

**Manufacturer Product Number:**

CDMC60D28T150NP-R82MC

**Series:**

CDMC60D28/T150

**Type:**

Molded

**Inductance:**

820 nH

**Current Rating (Amps):**

11.5 A

**Shielding:**

Shielded

**Q @ Freq:**

-

**Ratings:**

AEC-Q200

**Inductance Frequency - Test:**

100 kHz

**Mounting Type:**

Surface Mount

**Supplier Device Package:**

-

**Height - Seated (Max):**

0.118" (3.00mm)

**Manufacturer:**

Sumida America Components Inc.

**Product Status:**

Active

**Material - Core:**

Metal Composite

**Tolerance:**

±20%

**Current - Saturation (Isat):**

28A

**DC Resistance (DCR):**

7.92mOhm Max

**Frequency - Self Resonant:**

-

**Operating Temperature:**

-55°C ~ 150°C

**Features:**

-

**Package / Case:**

Nonstandard

**Size / Dimension:**

0.270" L x 0.255" W (6.86mm x 6.47mm)

## Environmental & Export classification

**Moisture Sensitivity Level (MSL):**

1 (Unlimited)



# Low-Profile High Current Power Inductor

## CDMC60D28/T150



### Description

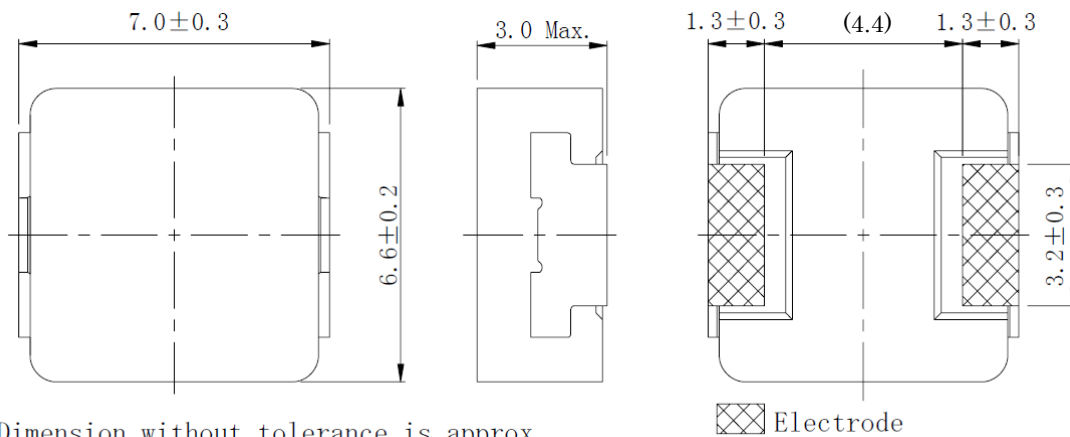
- Metal composite type (High Power Type Series)
- L x W x H: 7.30 x 6.80 x 3.00 mm Max.
- Absolute maximum voltage (across inductor): 100V
- Magnetically shielded
- Qualified AEC-Q200
- Operating temperature range: -55°C~ +150°C  
(including coil's self- temperature rise)



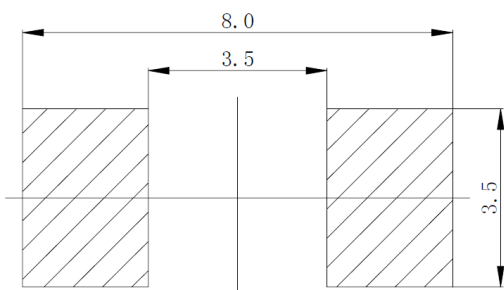
### Applications

- LED head light for automobile.
- ECU
- Automotive and other high temperature, high reliability applications

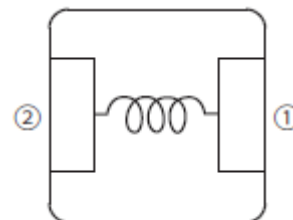
### Dimension - [mm]



### Reference 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.



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## CDMC60D28/T150



### Electrical Characteristics

| Part No.              | Inductance<br>[within] ( $\mu$ H)<br>※1 | D.C.R.<br>[Within]<br>(m $\Omega$ )<br>(at 20°C)<br>Max. (Typ.) | Saturation<br>Current (A)<br>Max. (Typ.)<br>※2 | Temperature Rise Current<br>(A)<br>Max. (Typ.)<br>※3 |
|-----------------------|---|---|--|--|
| CDMC60D28T150NP-R10MC | 0.10 $\pm$ 20%                          | 1.96 (1.70)   | (80.0)   | (26.0)   |
| CDMC60D28T150NP-R15MC | 0.15 $\pm$ 20%                          | 2.53 (2.20)   | (73.0)   | (21.3)   |
| CDMC60D28T150NP-R22MC | 0.22 $\pm$ 20%                          | 3.08 (2.80)   | (57.0)   | (19.0)   |
| CDMC60D28T150NP-R33MC | 0.33 $\pm$ 20%                          | 3.96 (3.60)   | (43.5)   | (16.6)   |
| CDMC60D28T150NP-R47MC | 0.47 $\pm$ 20%                          | 4.84 (4.40)   | (36.5)   | (15.1)   |
| CDMC60D28T150NP-R68MC | 0.68 $\pm$ 20%                          | 6.93 (6.30)   | (30.5)   | (12.9)   |
| CDMC60D28T150NP-R82MC | 0.82 $\pm$ 20%                          | 7.92 (7.20)   | (28.0)   | (11.5)   |
| CDMC60D28T150NP-1R0MC | 1.0 $\pm$ 20%                           | 9.90 (9.00)   | (24.00)  | (10.6)   |
| CDMC60D28T150NP-1R5MC | 1.5 $\pm$ 20%                           | 17.9 (16.3)   | (23.0)   | (7.6)  |
| CDMC60D28T150NP-2R2MC | 2.2 $\pm$ 20%                           | 27.4 (24.9)   | (19.0)   | (6.2)  |
| CDMC60D28T150NP-3R3MC | 3.3 $\pm$ 20%                           | 36.4 (33.1)   | (16.6)   | (5.4)  |
| CDMC60D28T150NP-4R7MC | 4.7 $\pm$ 20%                           | 50.5 (45.9)   | (11.1)   | (4.4)  |
| CDMC60D28T150NP-6R8MC | 6.8 $\pm$ 20%                           | 80.7 (73.4)   | (9.3)  | (3.5)  |
| CDMC60D28T150NP-8R2MC | 8.2 $\pm$ 20%                           | 95.6 (86.9)   | (9.8)  | (3.3)  |
| CDMC60D28T150NP-100MC | 10.0 $\pm$ 20%                          | 113 (102)   | (9.3)  | (3.0)  |
| CDMC60D28T150NP-150MC | 15.0 $\pm$ 20%                          | 208 (189)   | (7.1)  | (2.3)  |

※1 Measuring frequency at 100kHz, 0.1V

※2 Saturation current: This indicates the actual value of D.C. current when the inductance becomes 20% lower than its initial value.

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

Note: Please note that when using the product while applying current with audio-frequency (AF) signals may result in audible noises due to magnetostriction. Also, in order to avoid an audible noise problem, operating with non-AF signals would be recommended. The noise amplifies depending on the coil mount area on the PCB.

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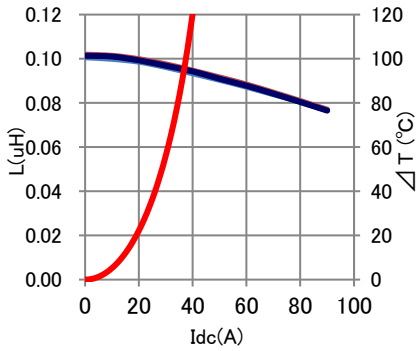
# Low-Profile High Current Power Inductor

## CDMC60D28/T150

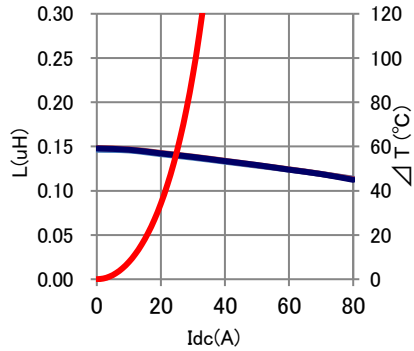


Saturation Current & Temperature Rise Graph — L (20°C & 150°C) —  $\Delta T$

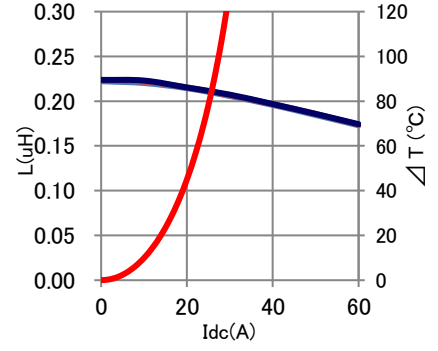
CDMC60D28T150NP-R10MC



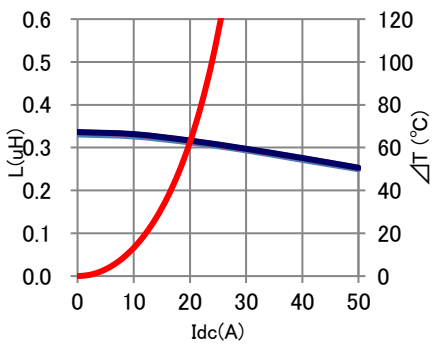
CDMC60D28T150NP-R15MC



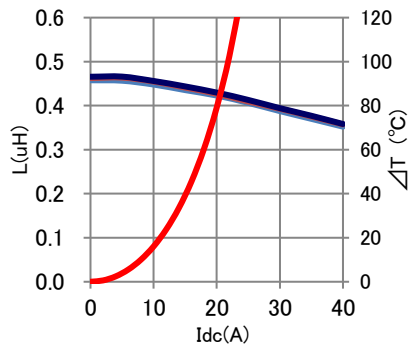
CDMC60D28T150NP-R22MC



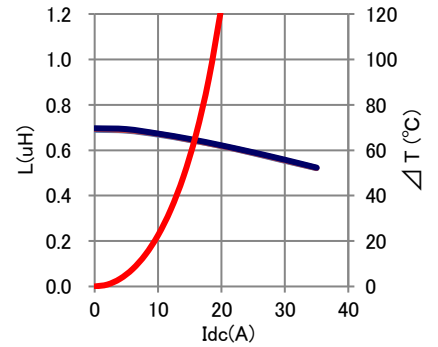
CDMC60D28T150NP-R33MC



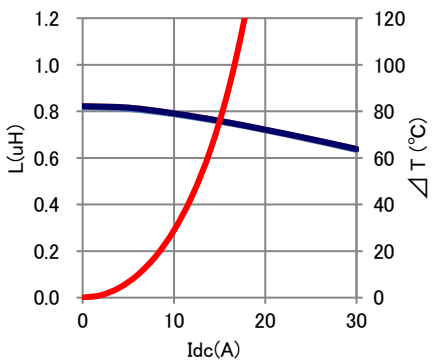
CDMC60D28T150NP-R47MC



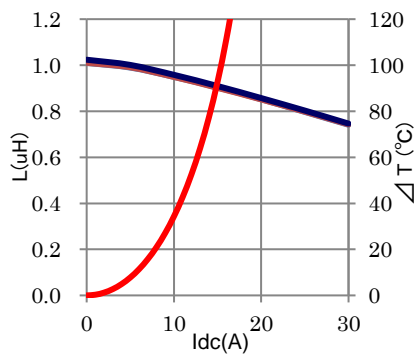
CDMC60D28T150NP-R68MC



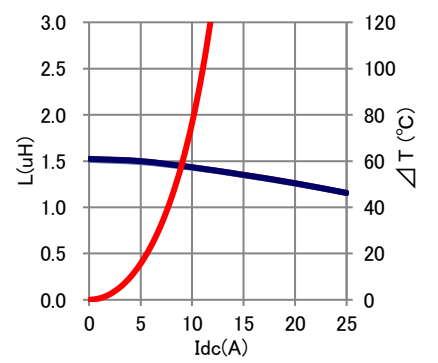
CDMC60D28T150NP-R82MC



CDMC60D28T150NP-1R0MC



CDMC60D28T150NP-1R5MC



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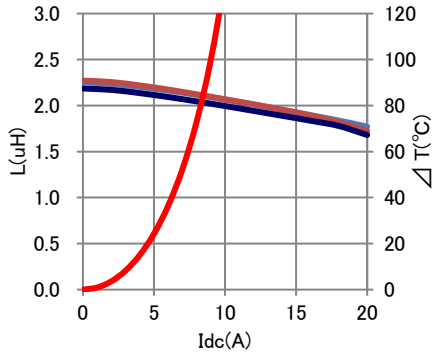


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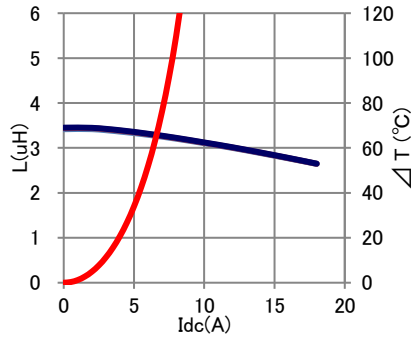
## CDMC60D28/T150



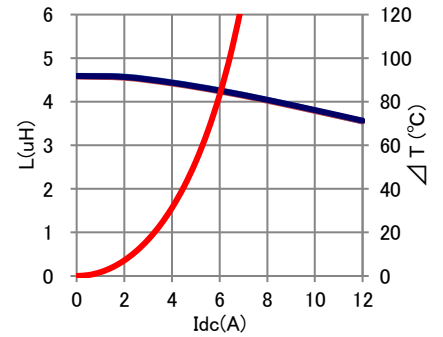
CDMC60D28T150NP-2R2MC



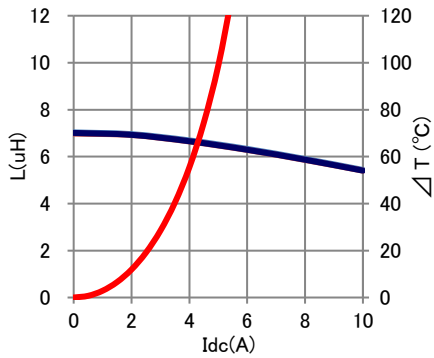
CDMC60D28BT150NP-3R3MC



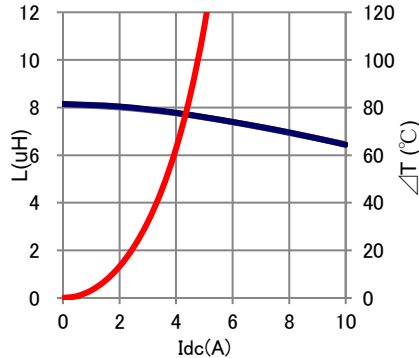
CDMC60D28T150NP-4R7MC



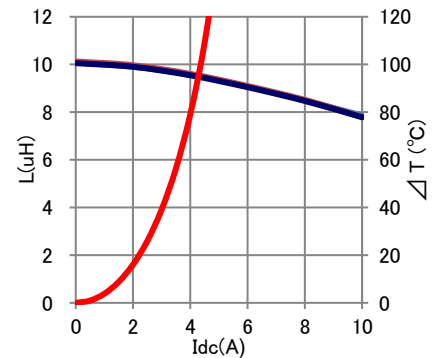
CDMC60D28T150NP-6R8MC



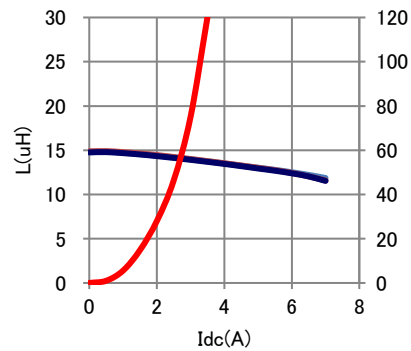
CDMC60D28T150NP-8R2MC



CDMC60D28T150NP-100MC



CDMC60D28T150NP-150MC



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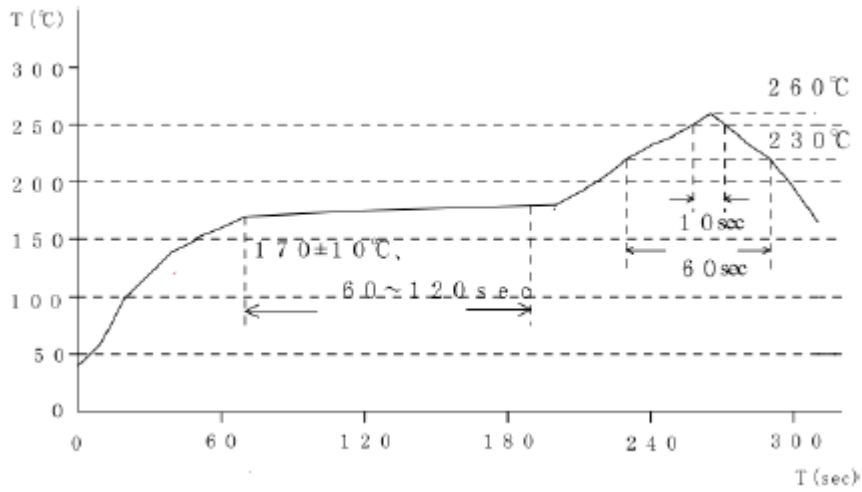


# Low-Profile High Current Power Inductor

## CDMC60D28/T150



### Solder Reflow Condition



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