

# CDRH50D20T150NP-150MC Datasheet



DiGi Electronics Part Number	CDRH50D20T150NP-150MC-DG
Manufacturer	<a href="#">Sumida America Components Inc.</a>
Manufacturer Product Number	CDRH50D20T150NP-150MC
Description	INDUCTOR
Detailed Description	15 $\mu$ H Shielded Drum Core Inductor 1.08 A 240mOhm Max Nonstandard

<https://www.DiGi-Electronics.com>



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

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## Purchase and inquiry

Manufacturer Product Number:

CDRH50D20T150NP-150MC

Series:

CDRH50D20/T150

Type:

Drum Core

Inductance:

15  $\mu$ H

Current Rating (Amps):

1.08 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.087" (2.20mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 20%

Current - Saturation (Isat):

1.15A

DC Resistance (DCR):

240mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 150°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.205" L x 0.205" W (5.20mm x 5.20mm)

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

# SMD Power Inductor

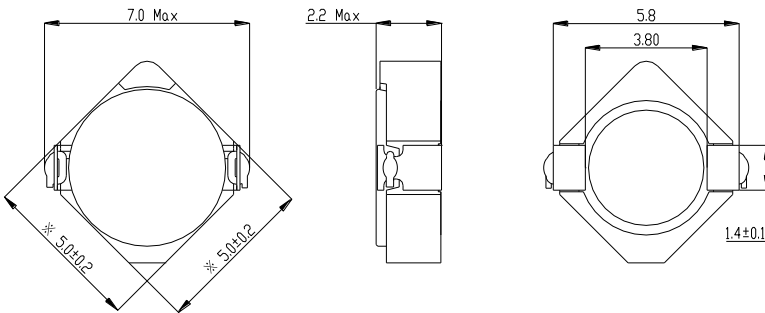
## CDRH50D20/T150



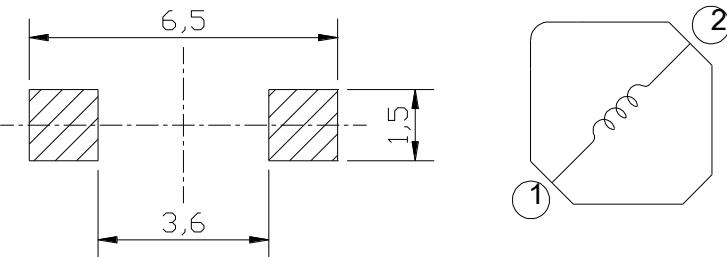
### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 5.2 × 5.2 × 2.2 mm Max.
- Product weight: 0.2g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Qualification to AEC-Q200.

### Dimension - [mm]



### Land pattern and Schematics - [mm]



### Environmental Data

- Operating temperature range: -40°C ~ +150°C
- (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +150°C
- Solder reflow temperature: 260 °C peak.

### Packaging

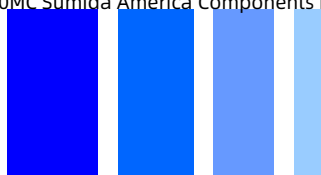
- Carrier tape and reel packaging

### Applications

- Automotive and other high temperature, high reliability application.

# SMD Power Inductor

## CDRH50D20/T150



### Electrical Characteristics

Part No.	Stamp	Inductance [Within] [ $\mu$ H] ※1	D. C. R. (m $\Omega$ ) [Max.] (at 20°C)	Saturation Current (A) (at 20°C) ※2	Temperature Rise Current (A) typ. ※3
CDRH50D20T150NP-1R2NC	1R2	1.2 $\pm$ 30%	30 (24)	4.00	3.40
CDRH50D20T150NP-1R8NC	1R8	1.8 $\pm$ 30%	36 (29)	3.40	3.12
CDRH50D20T150NP-2R2NC	2R2	2.2 $\pm$ 30%	40 (33)	3.06	2.88
CDRH50D20T150NP-3R3NC	3R3	3.3 $\pm$ 30%	50 (41)	2.51	2.52
CDRH50D20T150NP-4R7NC	4R7	4.7 $\pm$ 30%	74 (62)	2.04	2.08
CDRH50D20T150NP-6R8NC	6R8	6.8 $\pm$ 30%	110 (91)	1.73	1.75
CDRH50D20T150NP-100MC	100	10.0 $\pm$ 20%	144 (120)	1.41	1.51
CDRH50D20T150NP-150MC	150	15.0 $\pm$ 20%	240 (200)	1.15	1.08
CDRH50D20T150NP-220MC	220	22.0 $\pm$ 20%	320 (265)	0.97	0.98
CDRH50D20T150NP-330MC	330	33.0 $\pm$ 20%	440 (365)	0.78	0.83
CDRH50D20T150NP-470MC	470	47.0 $\pm$ 20%	690 (575)	0.66	0.61
CDRH50D20T150NP-101MC	101	100 $\pm$ 20%	1280 (1100)	0.45	0.52

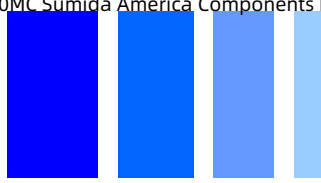
※1. Measuring condition: at 100 kHz.

※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 actual value of DC current when the top surface temperature of test sample rise is  $\Delta T = 40^\circ\text{C}$  ( $T_a = 25^\circ\text{C}$ ).

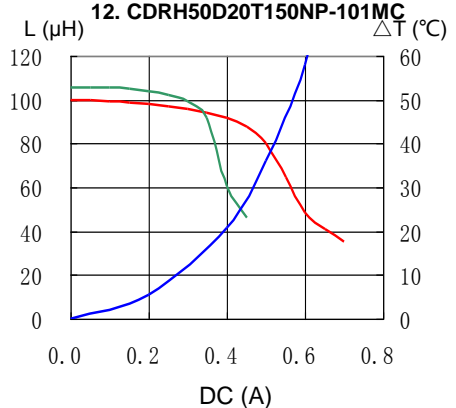
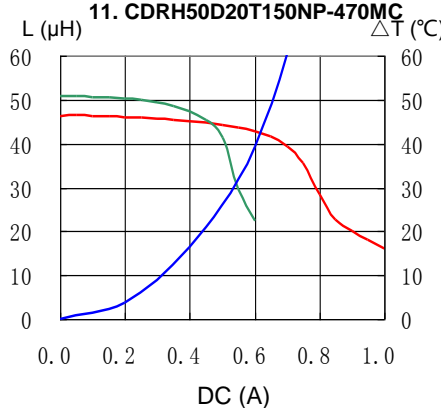
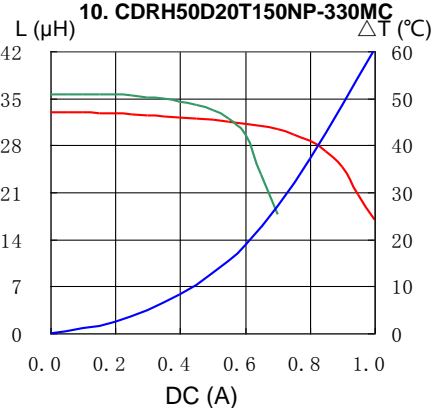
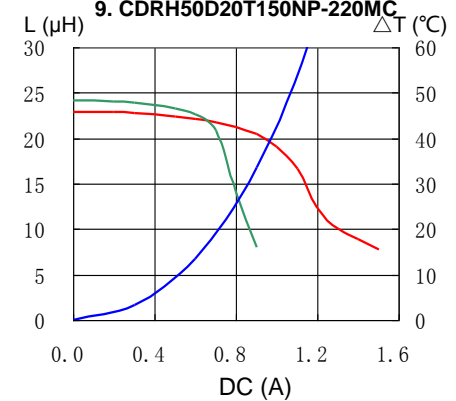
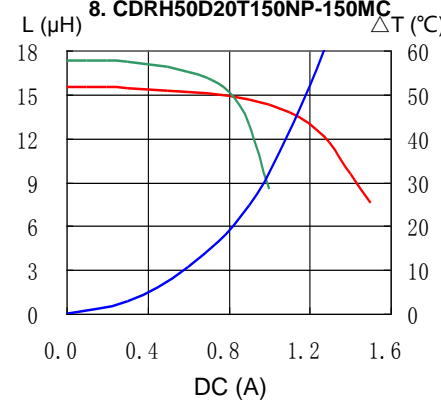
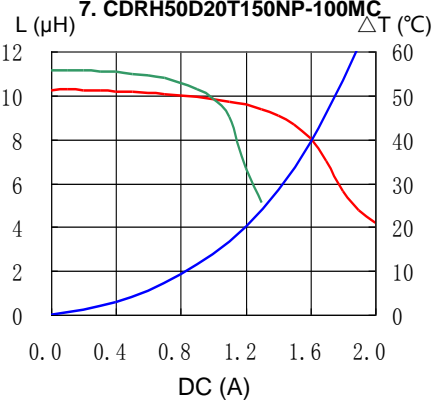
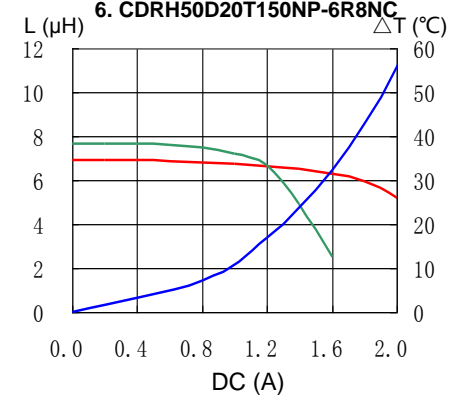
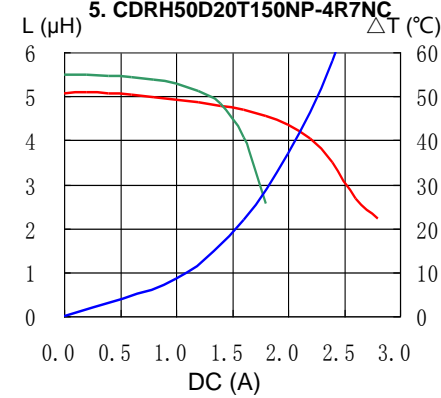
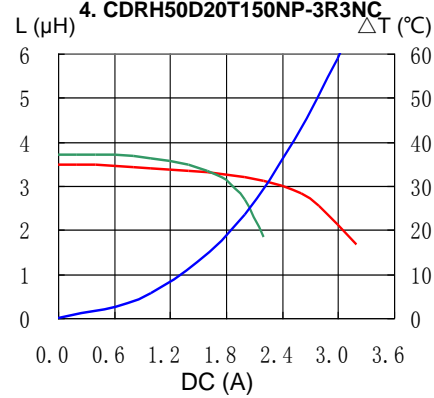
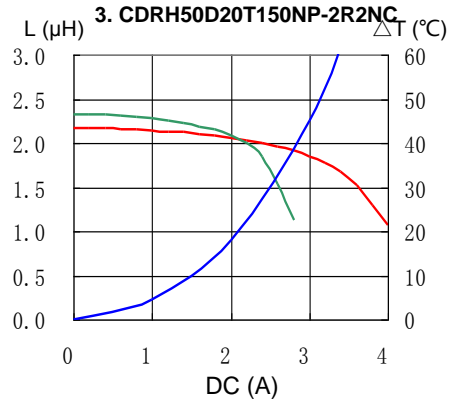
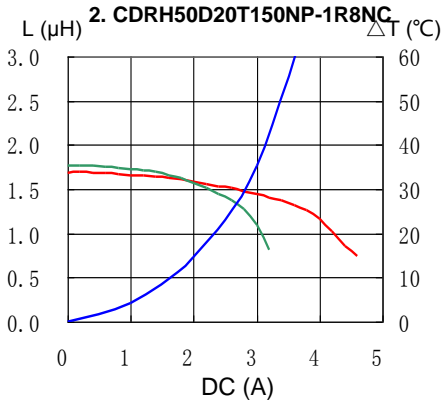
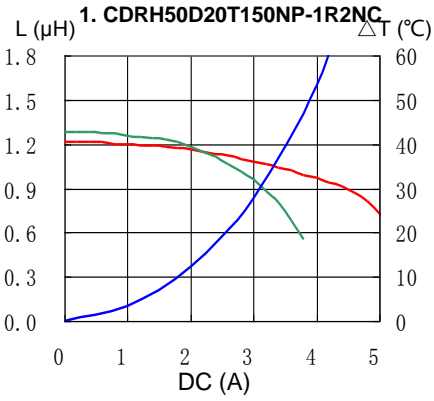
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## CDRH50D20/T150



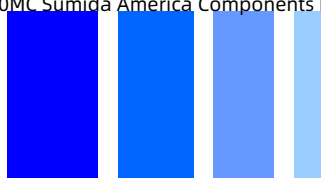
### Saturation Current & Temperature Rise Graph

— L (25°C) — L (150°C) —  $\Delta T$



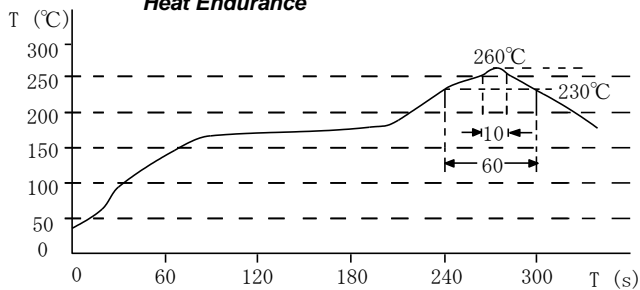
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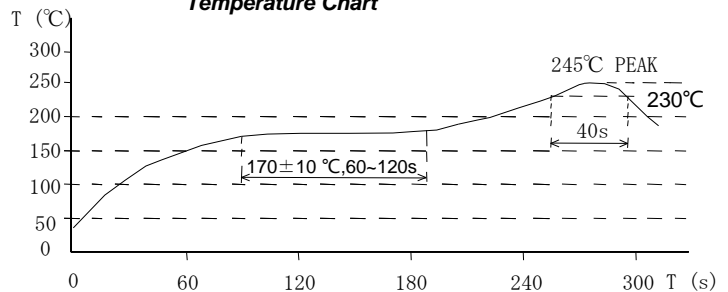


### Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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#### Hong Kong

Tel.+852-2880-6781  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)

#### Saitama(Japan)

Tel.+81-48-691-7300  
FAX.+81-48-691-7340  
[sales@jp.sumida.com](mailto:sales@jp.sumida.com)

#### Chicago

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FAX. +1-847-545-6720  
[sales@us.sumida.com](mailto:sales@us.sumida.com)

#### Shanghai

Tel.+86-21-5836-3299  
FAX.+86-21-5836-3266  
[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)

#### Seoul

Tel.+82-2-6237-0777  
FAX.+82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)

#### Obernzell

Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@eu.sumida.com](mailto:contact@eu.sumida.com)

#### Shenzhen

Tel.+86-755-8291-0228  
FAX.+86-755-8291-0338  
[shenzhen.sales@cn.sumida.com](mailto:shenzhen.sales@cn.sumida.com)

#### Singapore

Tel.+65-6296-3388  
FAX.+65-6841-4426  
[sales@sg.sumida.com](mailto:sales@sg.sumida.com)

#### Neumarkt

Tel.+49-9181-4509-110  
FAX. +49-9181-4509-310  
[infocomp@eu.sumida.com](mailto:infocomp@eu.sumida.com)

#### Taipei

Tel.+886-2-8751-2737  
FAX.+886-2-8751-2738  
[sales@tw.sumida.com](mailto:sales@tw.sumida.com)

#### San Jose

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