

CDRH50D20T150NP-6R8NC Datasheet



DiGi Electronics Part Number	CDRH50D20T150NP-6R8NC-DG
Manufacturer	Sumida America Components Inc.
Manufacturer Product Number	CDRH50D20T150NP-6R8NC
Description	INDUCTOR
Detailed Description	6.8 μ H Shielded Drum Core Inductor 1.75 A 110mOhm Max Nonstandard

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Purchase and inquiry

Manufacturer Product Number:

CDRH50D20T150NP-6R8NC

Series:

CDRH50D20/T150

Type:

Drum Core

Inductance:

6.8 μ H

Current Rating (Amps):

1.75 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 30%

Current - Saturation (Isat):

1.73A

DC Resistance (DCR):

110mOhm 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)

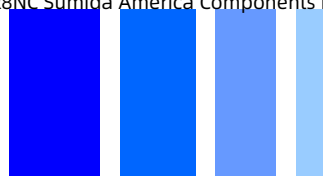
Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

SMD Power Inductor

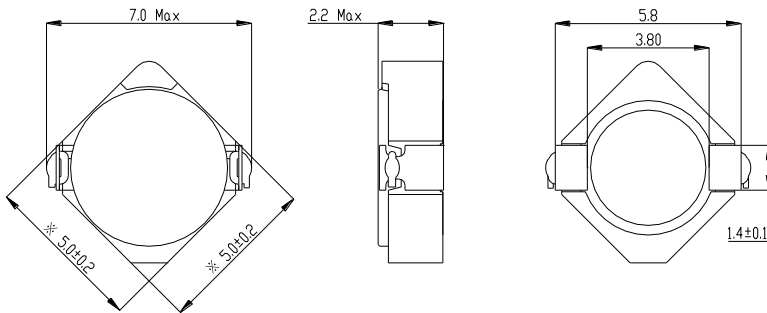
CDRH50D20/T150



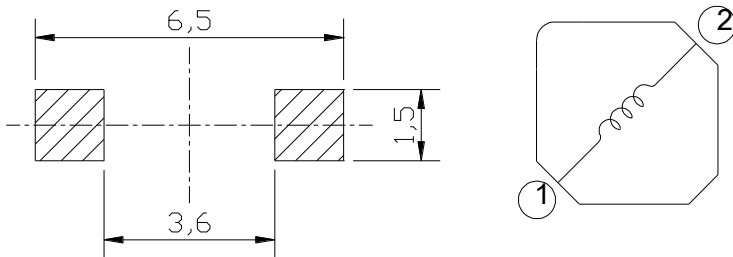
Description

- 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

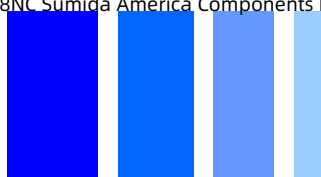
- Carrier tape and reel packaging

Applications

- Automotive and other high temperature, high reliability application.

SMD Power Inductor

CDRH50D20/T150



Electrical Characteristics

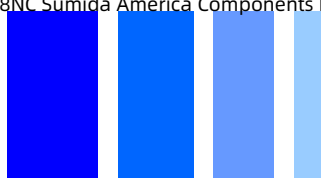
Part No.	Stamp	Inductance [Within] [μ H] ※1	D. C. R. (m Ω) [Max.] (at 20°C)	Saturation Current (A) (at 20°C) ※2	Temperature Rise Current (A) typ. ※3
CDRH50D20T150NP-1R2NC	1R2	1.2 \pm 30%	30 (24)	4.00	3.40
CDRH50D20T150NP-1R8NC	1R8	1.8 \pm 30%	36 (29)	3.40	3.12
CDRH50D20T150NP-2R2NC	2R2	2.2 \pm 30%	40 (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 its nominal value.

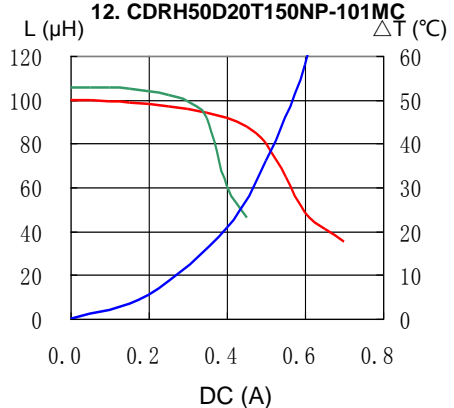
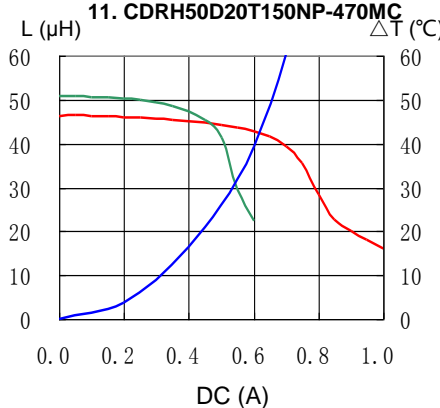
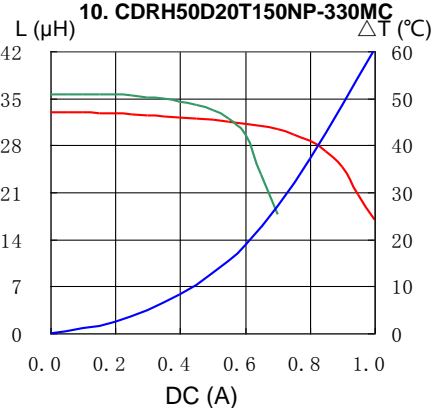
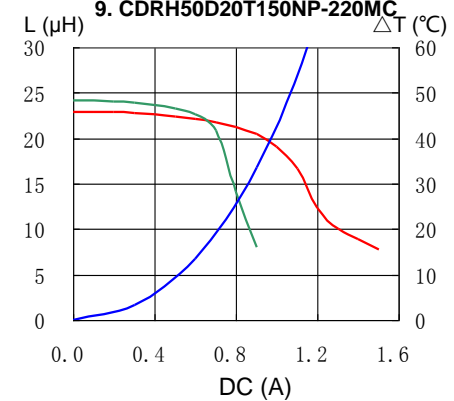
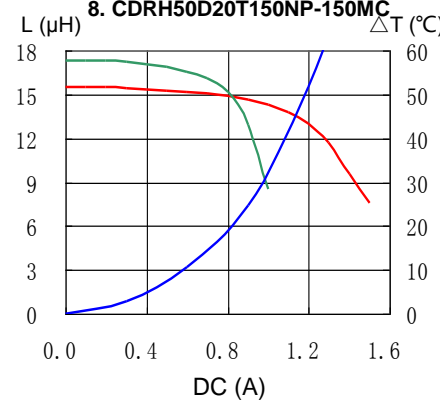
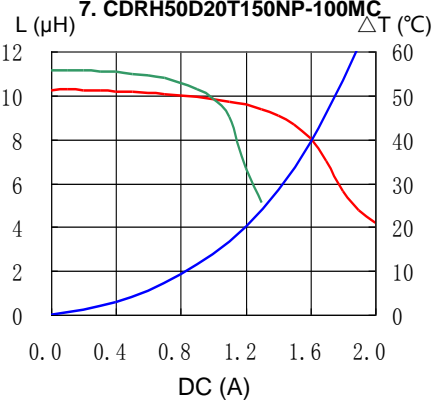
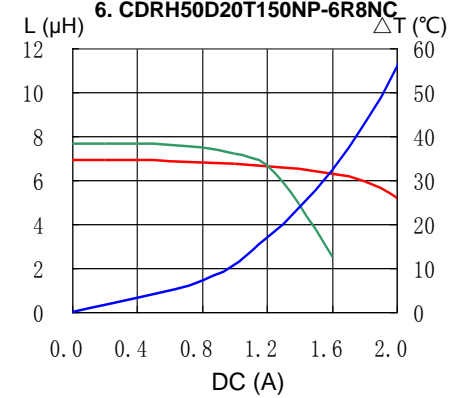
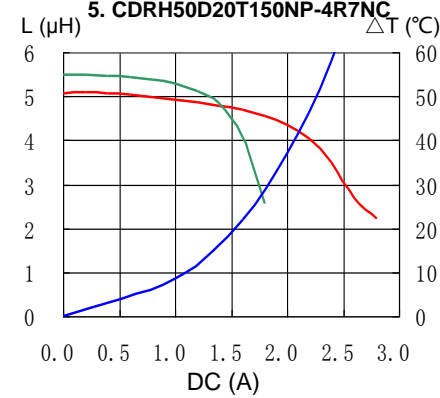
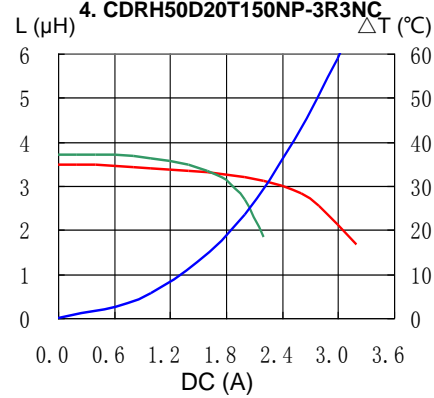
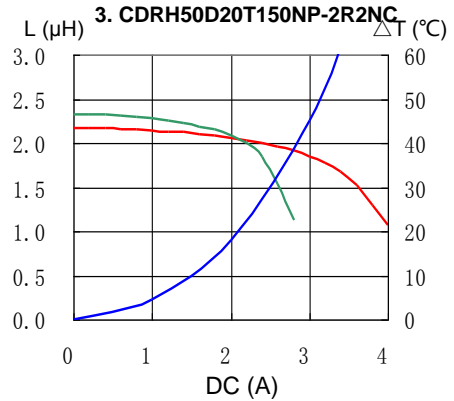
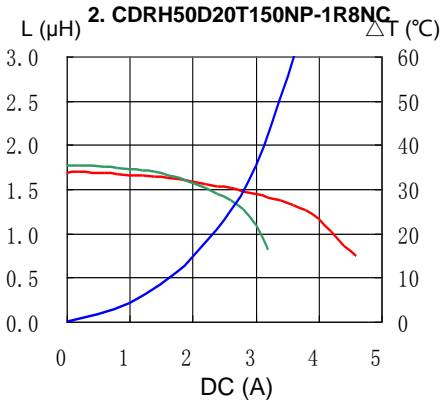
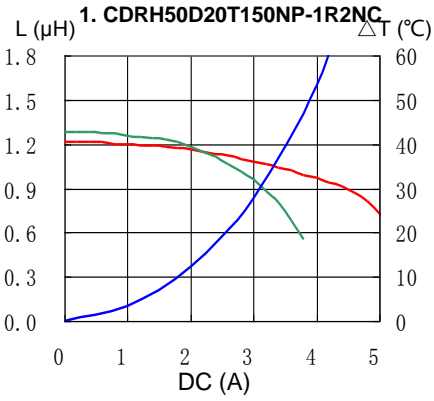
※3. Temperature rise current: The actual value of DC current when the top surface temperature of test sample rise is $\Delta T = 40^\circ\text{C}$ ($T_a = 25^\circ\text{C}$).

SMD Power Inductor CDRH50D20/T150



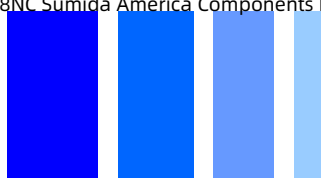
Saturation Current & Temperature Rise Graph

— L (25°C) — L (150°C) — ΔT



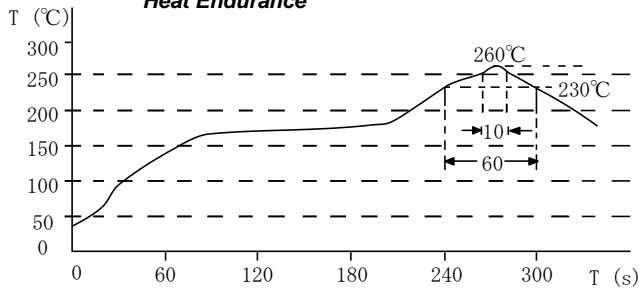
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CDRH50D20/T150

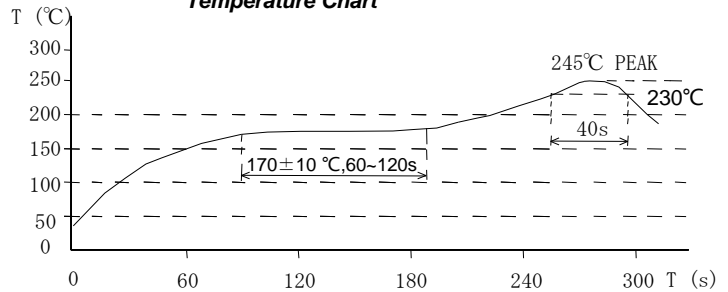


Solder Reflow Condition

Heat Endurance



Temperature Chart



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