

CDRH70D45BT150NP-221MC Datasheet

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|------------------------------|--|
| DiGi Electronics Part Number | CDRH70D45BT150NP-221MC-DG |
| Manufacturer | Sumida America Components Inc. |
| Manufacturer Product Number | CDRH70D45BT150NP-221MC |
| Description | FIXED IND 220UH 910MA 550MOHM SM |
| Detailed Description | 220 μ H Shielded Inductor 910 mA 550mOhm Nonstandard |



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Purchase and inquiry

Manufacturer Product Number:

CDRH70D45BT150NP-221MC

Series:

CDRH70D45B/T150

Type:

-

Inductance:

220 μ H

Current Rating (Amps):

910 mA

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.189" (4.80mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

\pm 20%

Current - Saturation (Isat):

620mA

DC Resistance (DCR):

550mOhm

Frequency - Self Resonant:

-

Operating Temperature:

-55°C ~ 150°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.303" L x 0.287" W (7.70mm x 7.30mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

ECCN:

EAR99

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8504.50.8000



SMD Power Inductor

CDRH70D45B/T150



Description

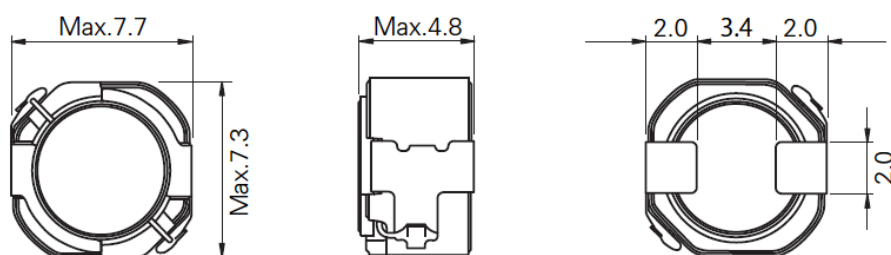
- Ferrite drum core construction
- Magnetically shielded
- Qualified AEC-Q200
- Operating Temperature: -55°C to +150°C (including self-heating)



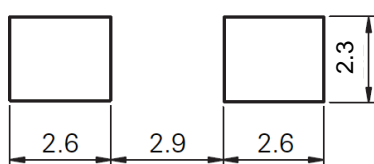
Applications

- LED Head light for Automobile
- ECU, DC/DC converter
- Automotive and other high temperature, high reliability application

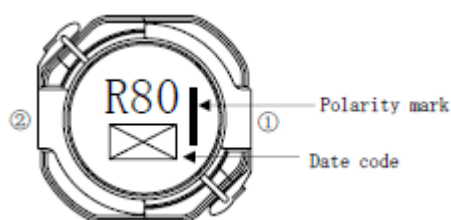
Dimension [mm]



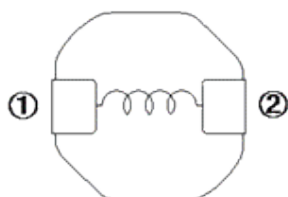
Reference Land pattern [mm]



Stamp Example



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

CDRH70D45B/T150



Electrical Characteristics

| Part No. | Inductance (μ H) ※1 | D.C.R (m Ω) (\pm 30%) | Saturation Current (A) at 20°C TYP. ※2 | Temperature Rise Current (A) TYP. ※3 |
|------------------------|--------------------------------|-------------------------------------|--|---|
| CDRH70D45BT150NP-R80NC | 0.8 \pm 30% | 7.0 | 10.7 | 9.40 |
| CDRH70D45BT150NP-1R2NC | 1.2 \pm 30% | 8.0 | 8.40 | 8.70 |
| CDRH70D45BT150NP-1R5NC | 1.5 \pm 30% | 9.0 | 7.40 | 8.40 |
| CDRH70D45BT150NP-2R2NC | 2.2 \pm 30% | 10.0 | 6.20 | 7.60 |
| CDRH70D45BT150NP-3R3NC | 3.3 \pm 30% | 13.0 | 5.10 | 6.70 |
| CDRH70D45BT150NP-4R7NC | 4.7 \pm 30% | 14.0 | 4.20 | 6.20 |
| CDRH70D45BT150NP-6R8NC | 6.8 \pm 30% | 22.0 | 3.60 | 5.10 |
| CDRH70D45BT150NP-100MC | 10 \pm 20% | 33.0 | 3.00 | 3.80 |
| CDRH70D45BT150NP-150MC | 15 \pm 20% | 55.0 | 2.40 | 3.10 |
| CDRH70D45BT150NP-220MC | 22 \pm 20% | 69.0 | 2.00 | 2.60 |
| CDRH70D45BT150NP-330MC | 33 \pm 20% | 97.0 | 1.60 | 2.20 |
| CDRH70D45BT150NP-470MC | 47 \pm 20% | 130 | 1.30 | 1.97 |
| CDRH70D45BT150NP-680MC | 68 \pm 20% | 190 | 1.10 | 1.57 |
| CDRH70D45BT150NP-101MC | 100 \pm 20% | 300 | 0.92 | 1.23 |
| CDRH70D45BT150NP-151MC | 150 \pm 20% | 430 | 0.74 | 1.05 |
| CDRH70D45BT150NP-221MC | 220 \pm 20% | 550 | 0.62 | 0.91 |
| CDRH70D45BT150NP-331MC | 330 \pm 20% | 920 | 0.51 | 0.67 |
| CDRH70D45BT150NP-471MC | 470 \pm 20% | 1350 | 0.43 | 0.54 |
| CDRH70D45BT150NP-681MC | 680 \pm 20% | 1750 | 0.35 | 0.50 |

※ Measuring frequency inductance at 100kHz,1V.

※ Saturation current: DC current which becomes inductance value drop by 30% from the nominal value.

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

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

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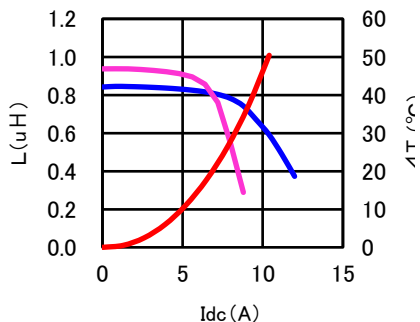


SMD Power Inductor CDRH70D45B/T150

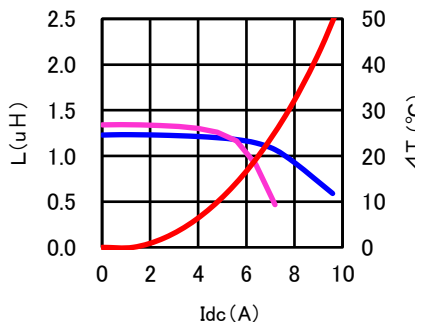


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) — ΔT

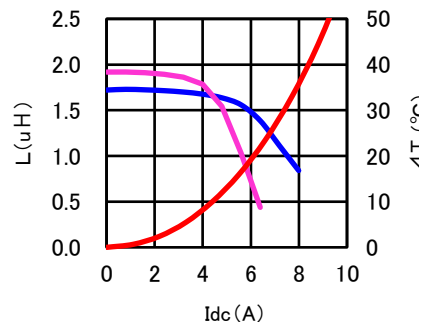
CDRH70D45BT150NP-R80NC



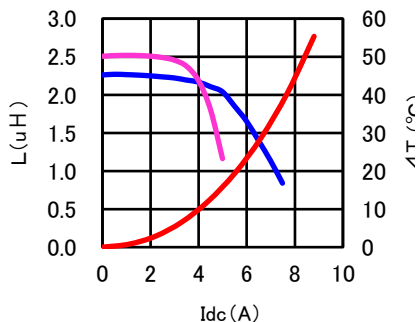
CDRH70D45BT150NP-1R2NC



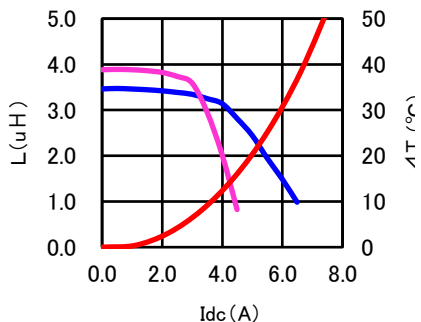
CDRH70D45BT150NP-1R5NC



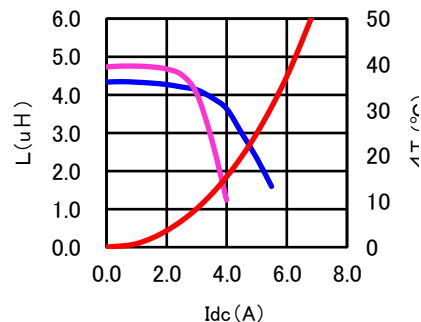
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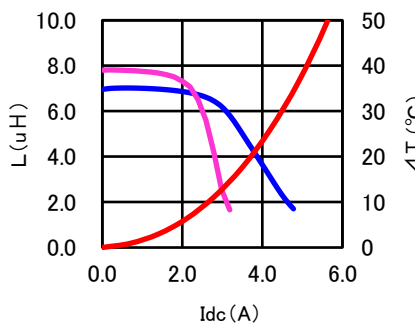
CDRH70D45BT150NP-3R3NC



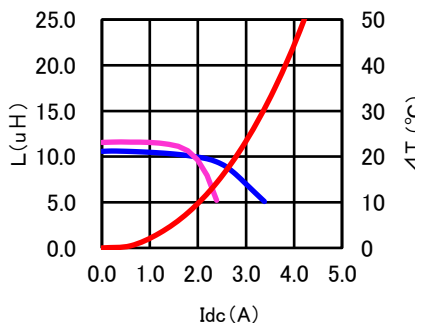
CDRH70D45BT150NP-4R7NC



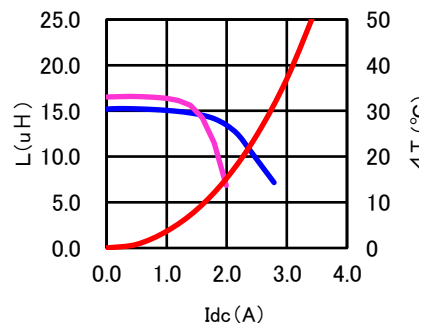
CDRH70D45BT150NP-6R8NC



CDRH70D45BT150NP-100MC



CDRH70D45BT150NP-150MC



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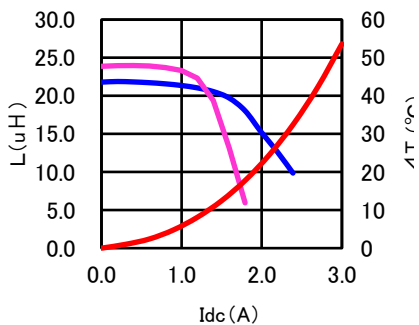


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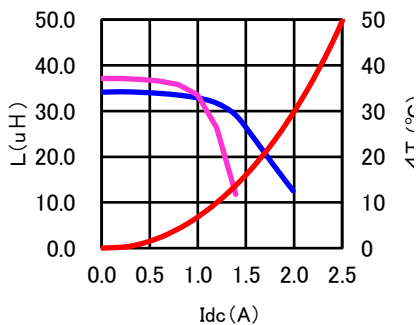


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) — ΔT

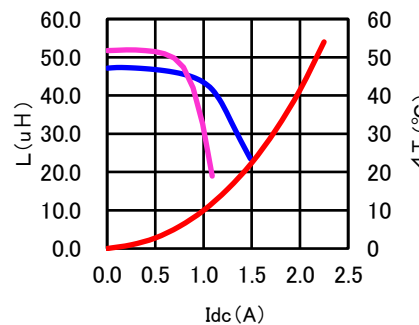
CDRH70D45BT150NP-220MC



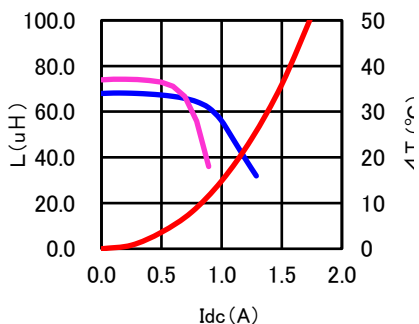
CDRH70D45BT150NP-330MC



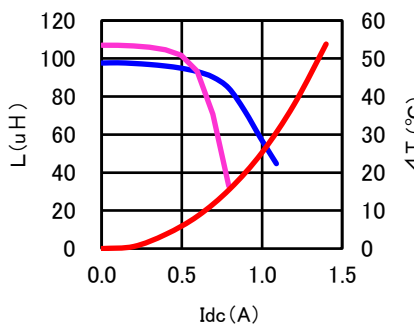
CDRH70D45BT150NP-470MC



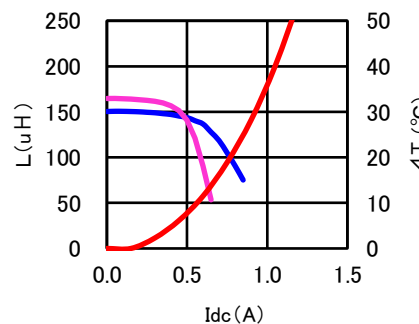
CDRH70D45BT150NP-680MC



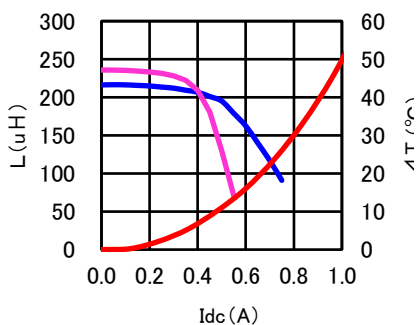
CDRH70D45BT150NP-101MC



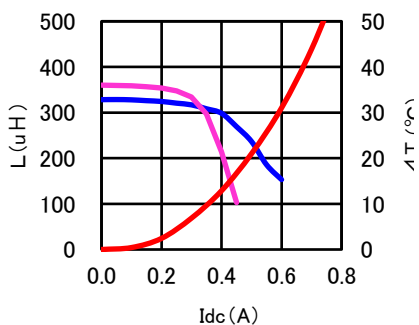
CDRH70D45BT150NP-151MC



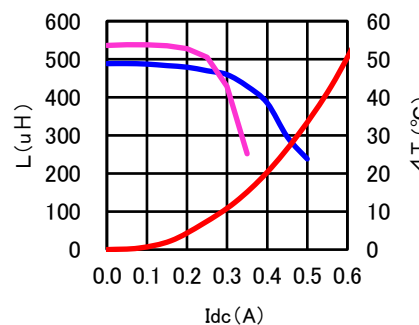
CDRH70D45BT150NP-221MC



CDRH70D45BT150NP-331MC



CDRH70D45BT150NP-471MC



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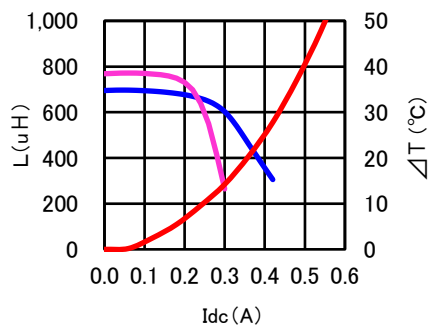
SMD Power Inductor

CDRH70D45B/T150



Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) — ΔT

CDRH70D45BT150NP-681MC



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