

# CDRH70D45BT150NP-470MC Datasheet

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DiGi Electronics Part Number	CDRH70D45BT150NP-470MC-DG
Manufacturer	<a href="#">Sumida America Components Inc.</a>
Manufacturer Product Number	CDRH70D45BT150NP-470MC
Description	FIXED IND 47UH 1.97A 130MOHM SMD
Detailed Description	47 $\mu$ H Shielded Inductor 1.97 A 130mOhm Nonstandard



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## Purchase and inquiry

**Manufacturer Product Number:**

CDRH70D45BT150NP-470MC

**Series:**

CDRH70D45B/T150

**Type:**

-

**Inductance:**47  $\mu$ H**Current Rating (Amps):**

1.97 A

**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):**

1.3A

**DC Resistance (DCR):**

130mOhm

**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

**REACH Status:**

Vendor Undefined

**HTSUS:**

8504.50.8000

**Moisture Sensitivity Level (MSL):**

1 (Unlimited)

**ECCN:**

EAR99



# SMD Power Inductor

## CDRH70D45B/T150



### Description

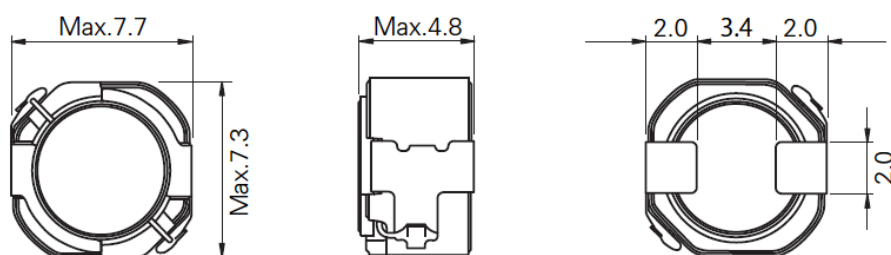
- Ferrite drum core construction
- Magnetically shielded
- Qualified AEC-Q200
- Operating Temperature: -55°C to +150°C (including self-heating)



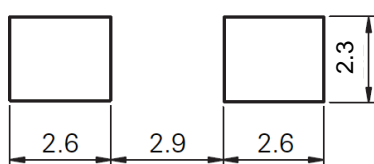
### Applications

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

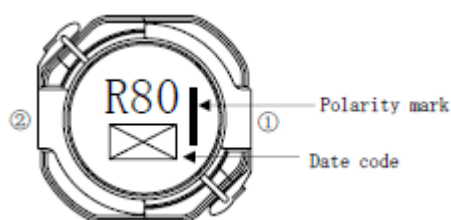
### Dimension [mm]



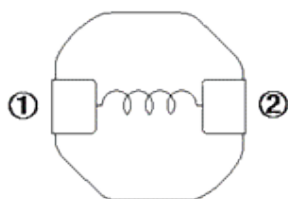
### Reference Land pattern [mm]



### 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 ( $\mu\text{H}$ ) ※1	D.C.R (m $\Omega$ ) ( $\pm 30\%$ )	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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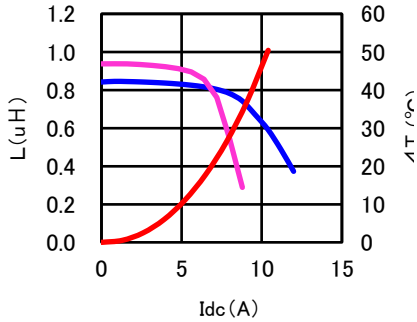


# SMD Power Inductor CDRH70D45B/T150

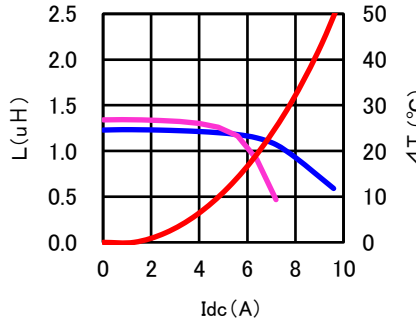


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) —  $\Delta T$

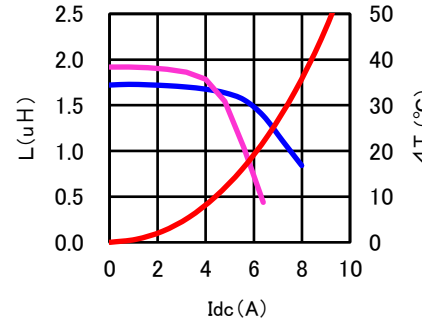
**CDRH70D45BT150NP-R80NC**



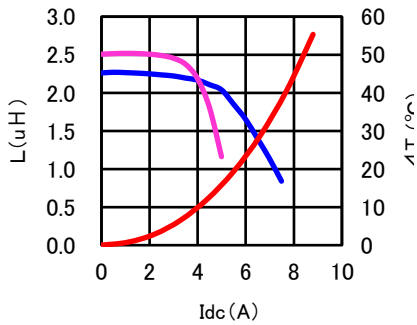
**CDRH70D45BT150NP-1R2NC**



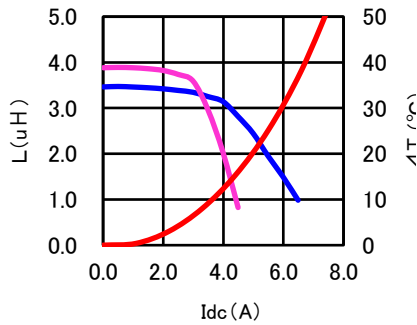
**CDRH70D45BT150NP-1R5NC**



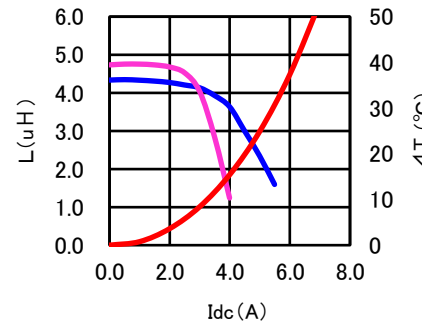
**CDRH70D45BT150NP-2R2NC**



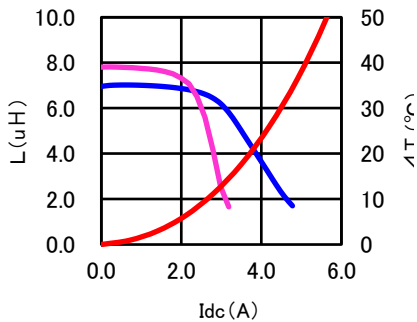
**CDRH70D45BT150NP-3R3NC**



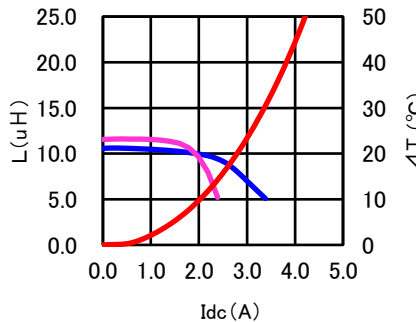
**CDRH70D45BT150NP-4R7NC**



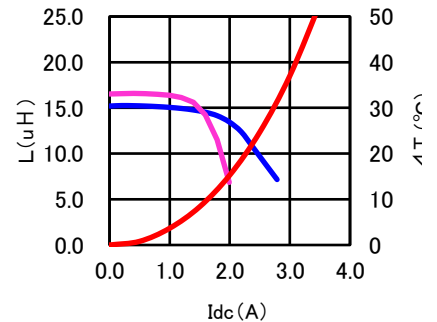
**CDRH70D45BT150NP-6R8NC**



**CDRH70D45BT150NP-100MC**



**CDRH70D45BT150NP-150MC**



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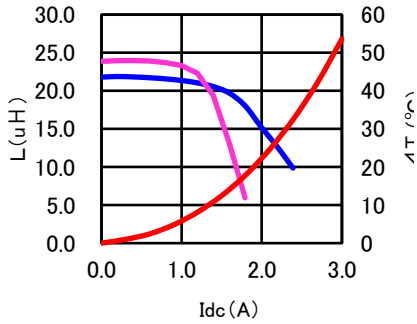


# SMD Power Inductor CDRH70D45B/T150

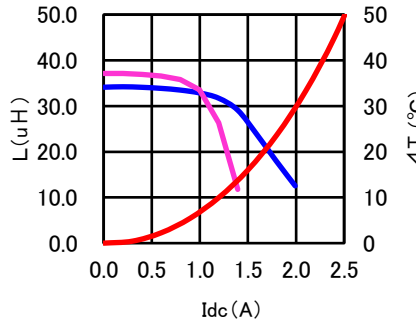


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) —  $\Delta T$

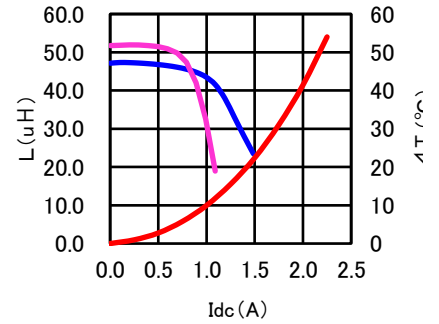
**CDRH70D45BT150NP-220MC**



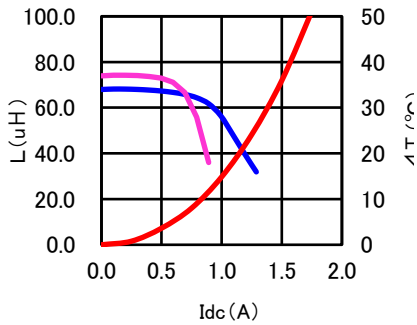
**CDRH70D45BT150NP-330MC**



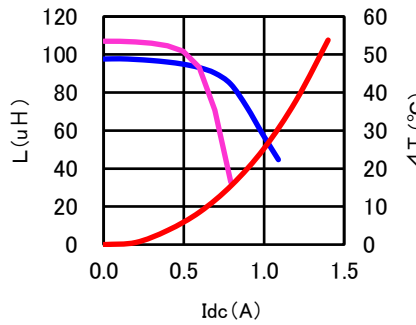
**CDRH70D45BT150NP-470MC**



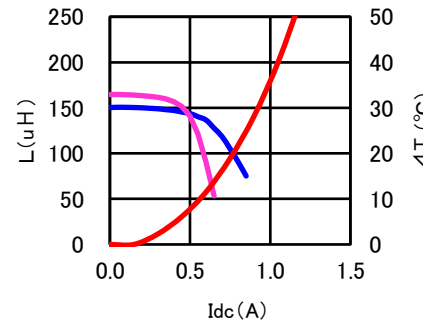
**CDRH70D45BT150NP-680MC**



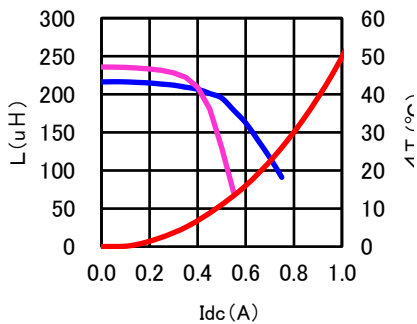
**CDRH70D45BT150NP-101MC**



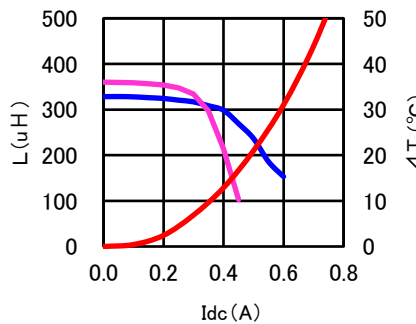
**CDRH70D45BT150NP-151MC**



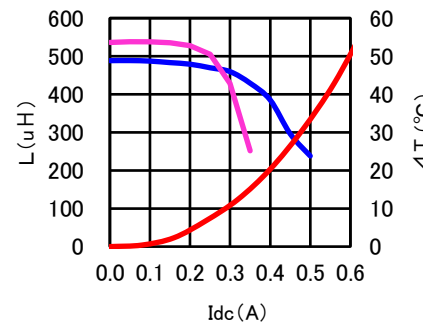
**CDRH70D45BT150NP-221MC**



**CDRH70D45BT150NP-331MC**



**CDRH70D45BT150NP-471MC**



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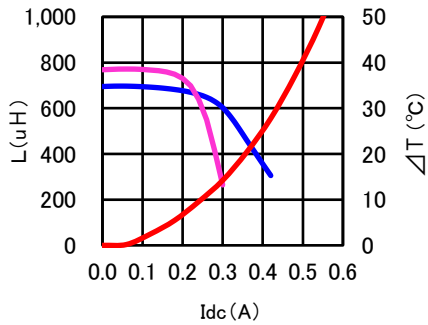
# SMD Power Inductor

## CDRH70D45B/T150



Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) —  $\Delta T$

CDRH70D45BT150NP-681MC



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