



**THE DATASHEET OF  
CDRH70D45BT150NP-150MC**



# SMD Power Inductor CDRH70D45B/T150



## Description

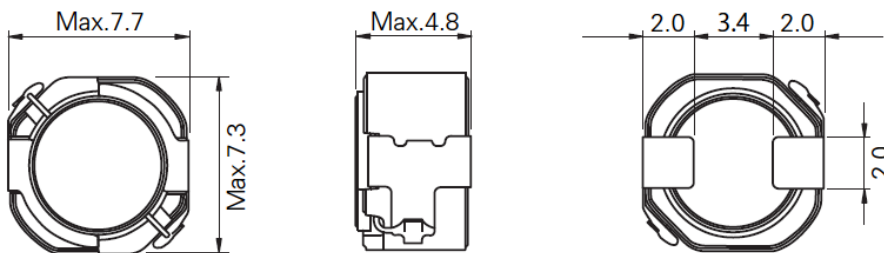
- Ferrite drum core construction
- Magnetically shielded
- Qualified AEC-Q200
- Operating Temperature: -55°C to +150°C (including self-heating)



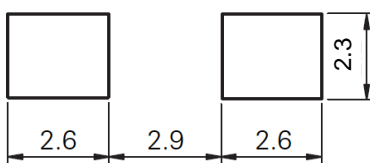
## Applications

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

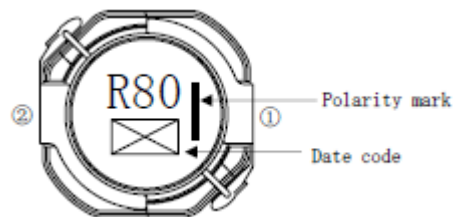
## Dimension [mm]



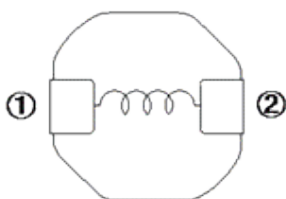
## Reference Land pattern [mm]



## 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.

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## 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.

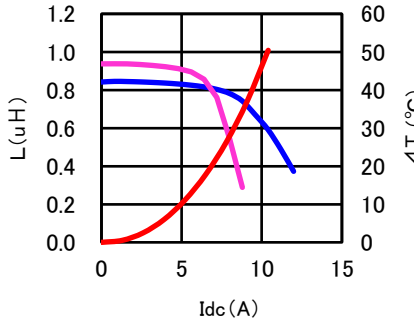
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# SMD Power Inductor CDRH70D45B/T150

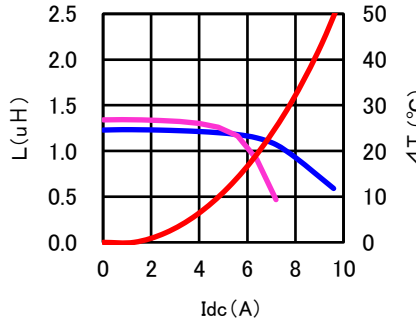


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) —  $\Delta T$

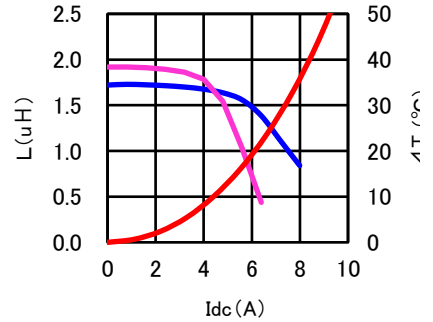
**CDRH70D45BT150NP-R80NC**



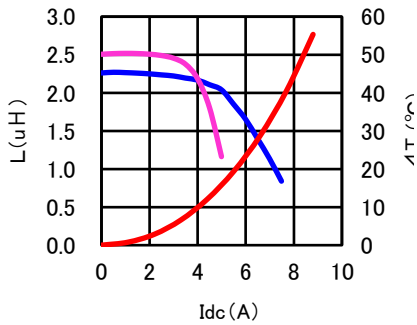
**CDRH70D45BT150NP-1R2NC**



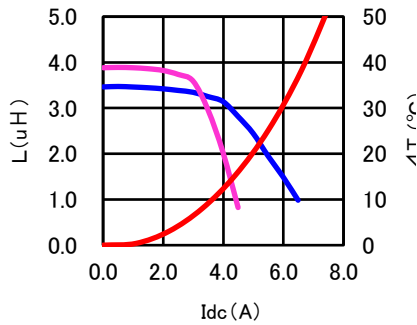
**CDRH70D45BT150NP-1R5NC**



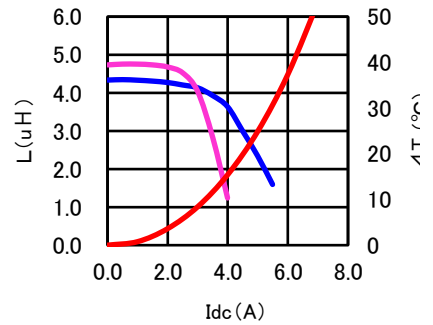
**CDRH70D45BT150NP-2R2NC**



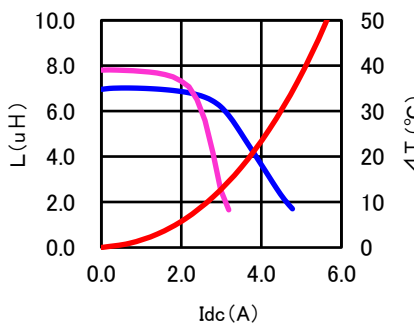
**CDRH70D45BT150NP-3R3NC**



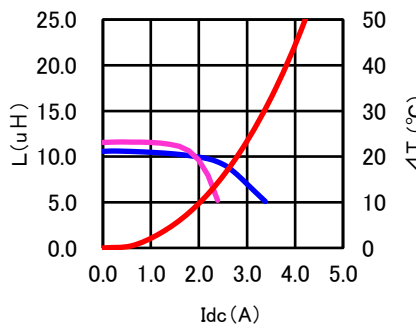
**CDRH70D45BT150NP-4R7NC**



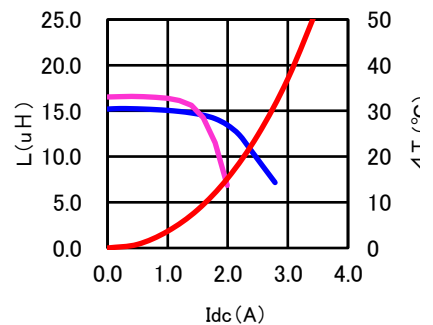
**CDRH70D45BT150NP-6R8NC**



**CDRH70D45BT150NP-100MC**



**CDRH70D45BT150NP-150MC**



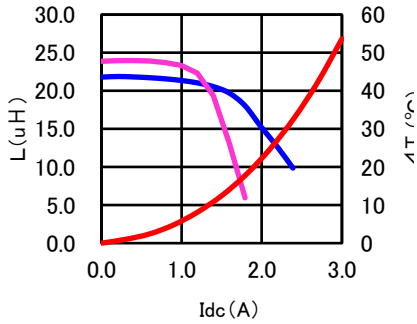
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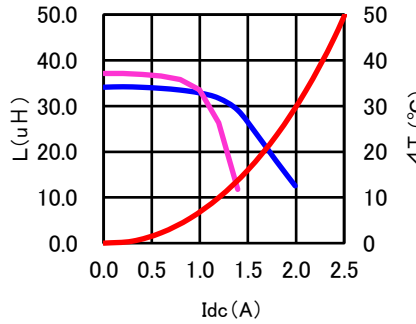


Saturation Current & Temperature Rise Graph — L (25°C) — L (150°C) —  $\Delta T$

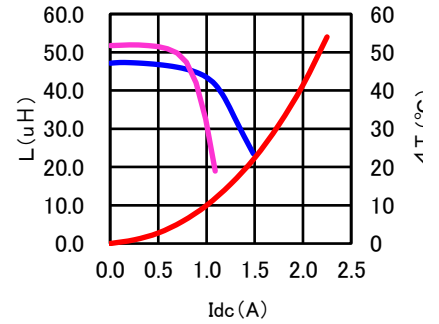
**CDRH70D45BT150NP-220MC**



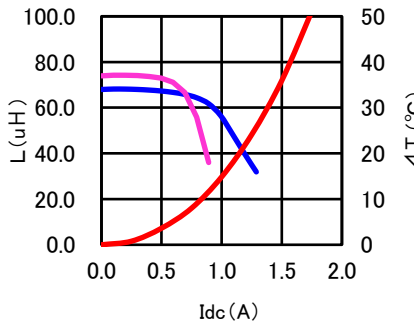
**CDRH70D45BT150NP-330MC**



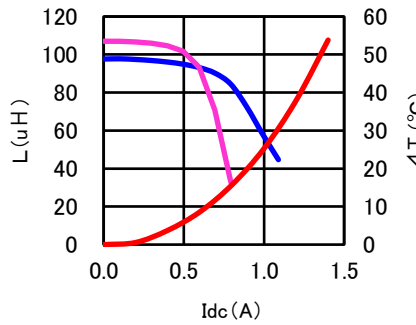
**CDRH70D45BT150NP-470MC**



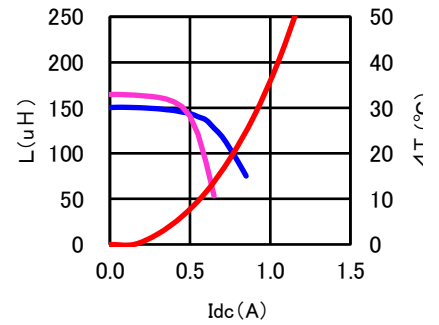
**CDRH70D45BT150NP-680MC**



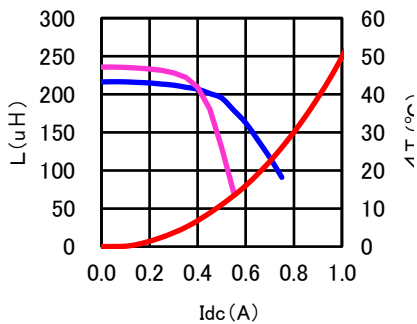
**CDRH70D45BT150NP-101MC**



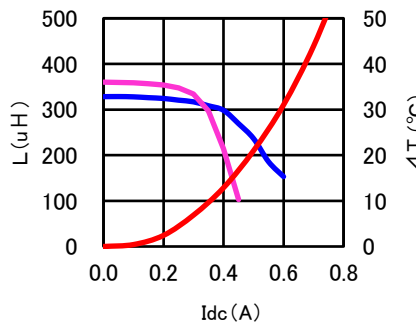
**CDRH70D45BT150NP-151MC**



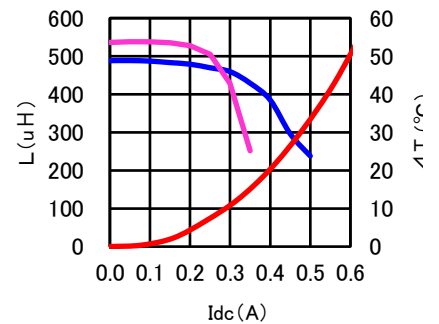
**CDRH70D45BT150NP-221MC**



**CDRH70D45BT150NP-331MC**



**CDRH70D45BT150NP-471MC**



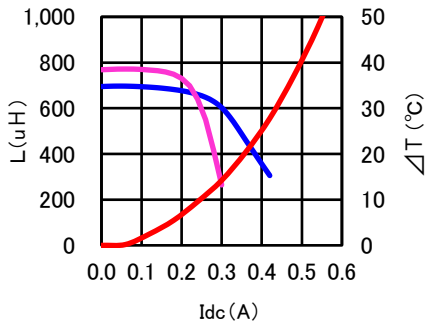
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# SMD Power Inductor CDRH70D45B/T150



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

CDRH70D45BT150NP-681MC



For sales office information, please [click here](#) to visit our website.

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