

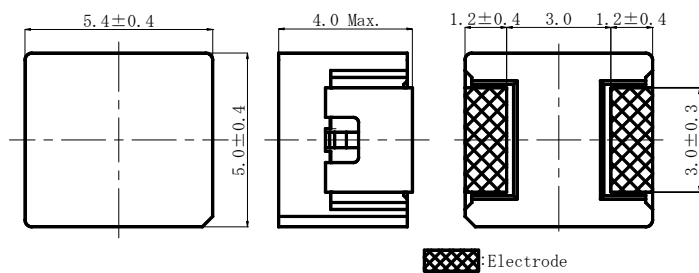
### Features

- Metal compound molding type construction.
- Magnetically shielded.
- Qualified AEC-Q200
- Suitable for Large Current
- Operating temperature range: - 40deg C~+150deg C (including coil's self temperature rise)

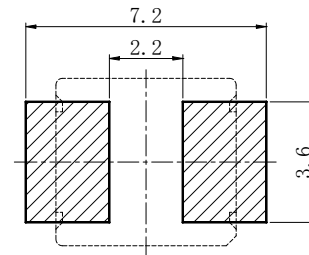
### Applications

- LED Head light for Automobile
- ECU for Airbag, Water and Oil pump etc
- DC/DC converter

### Dimension - [mm]



### Reference Land pattern- [mm]



### Electrical Characteristics

Part No.	Inductance (μH) (±20%) * 1	D.C.R. (mΩ) at 20degC (±10%)	Saturation Current (A) * 2			Temperature Rise current (A) * 3
			at 20degC	at 110degC	at 150degC	
CDMC50D38T150NP -1R0MC	1.05	16.5	11.5	10.0	10.0	6.5
CDMC50D38T150NP -1R5MC	1.50	20.0	9.8	9.0	8.9	5.9
CDMC50D38T150NP -2R5MC	2.50	27.3	8.0	7.5	7.4	5.1
CDMC50D38T150NP -3R0MC	3.00	30.5	7.5	6.9	6.8	4.8
CDMC50D38T150NP -4R7MC	4.70	41.0	6.3	5.8	5.7	4.1
CDMC50D38T150NP -6R8MC	6.80	51.3	5.4	4.9	4.8	3.6
CDMC50D38T150NP -100MC	10.0	76.6	4.4	4.1	4.0	2.9
CDMC50D38T150NP -150MC	15.0	120.8	3.6	3.3	3.2	2.3
CDMC50D38T150NP -220MC	22.0	180.8	3.0	2.7	2.7	1.8

\* 1 Inductance Measuring frequency: 100kHz, 0.1V

\* 2 Saturation current: DC current which becomes inductance value drop down to 30% from the initial value.

\* 3 Temperature rise current : DC current which becomes  $\Delta T=40^{\circ}C$  ( $T_a=20^{\circ}C$ ) in component body temperature.  
Board conditions: FR4, Copper=70μm, four-layer PWB, t=1.6mm

\* In order to select the proper inductor for your circuit design, it should be checked the inductor rated current for heat generation in the worst case. Under normal operational condition, it shall not exceed the maximum operating temperature (150 deg C.)

\* Allowable current of inductor is either saturation current or temperature rise current, whichever is lower.

\* Absolute maximum voltage 40V DC.

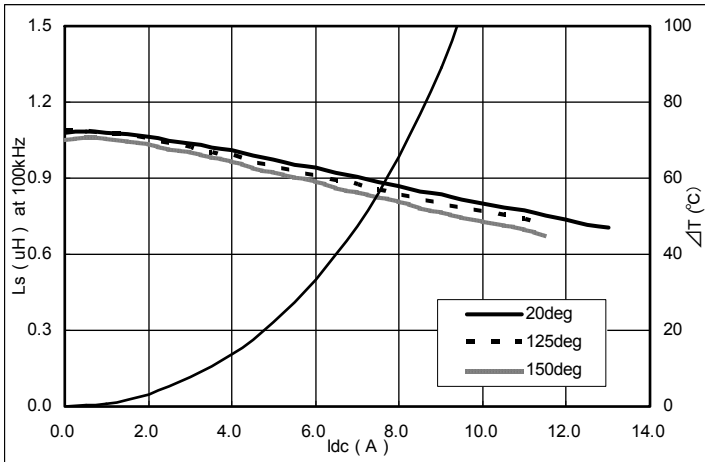
\* Take the static electricity measures to prevent deterioration of electric characteristics.

Note: This datasheet might be slightly modified without notice in order to improve the quality and reliability of the product. Please contact an appropriate our sales in your regions for checking final spec before you place an order.

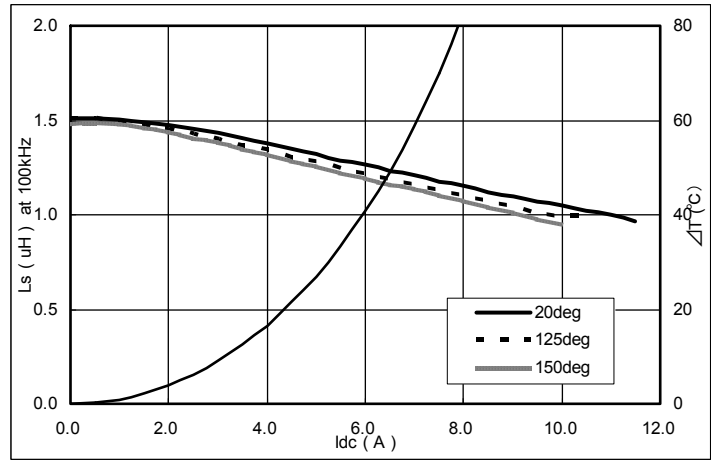
# CDMC50D38/T150



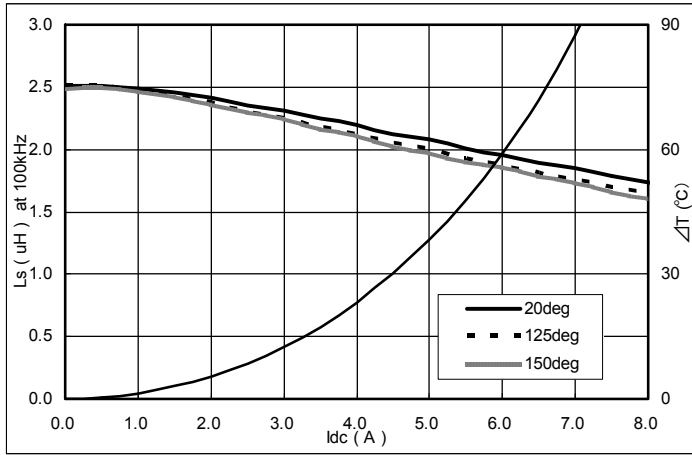
CDMC50D38T150NP-1R0MC



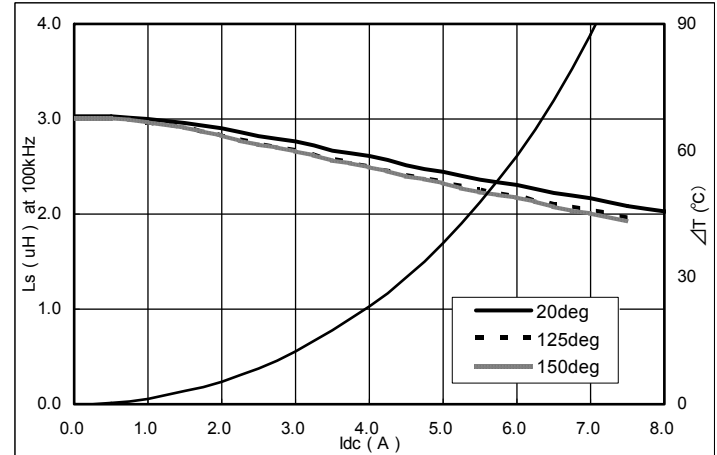
CDMC50D38T150NP-1R5MC



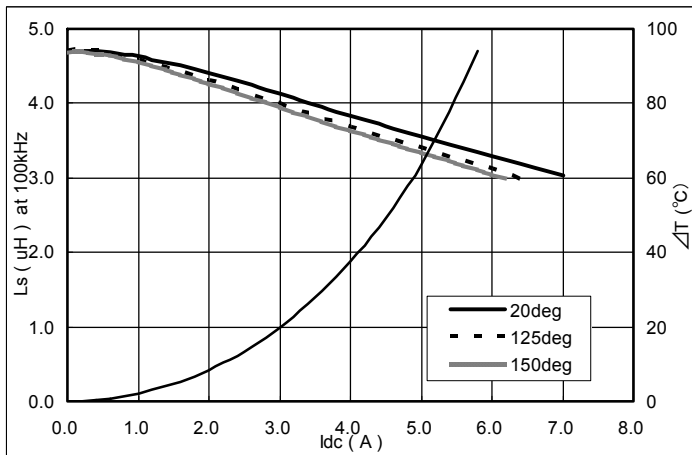
CDMC50D38T150NP-2R5MC



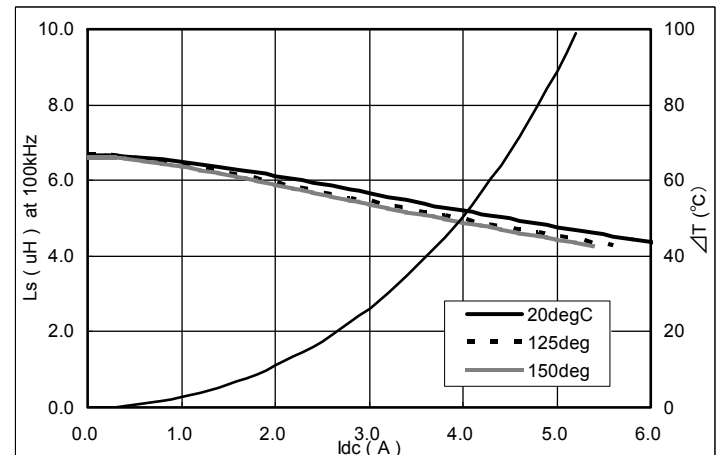
CDMC50D38T150NP-3R0MC



CDMC50D38T150NP-4R7MC



CDMC50D38T150NP-6R8MC

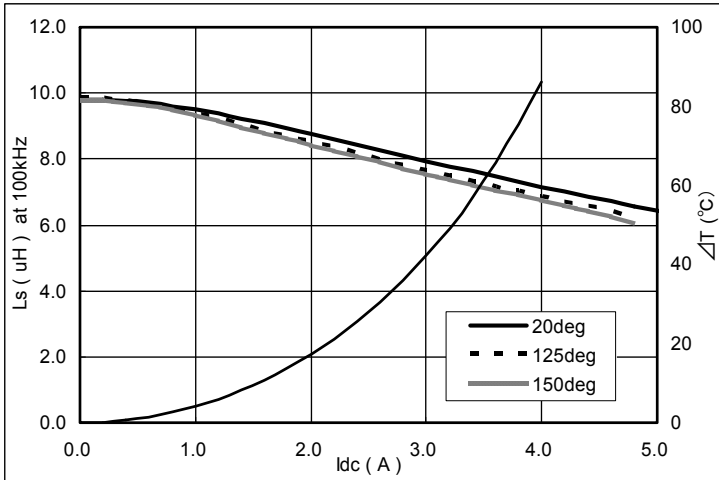


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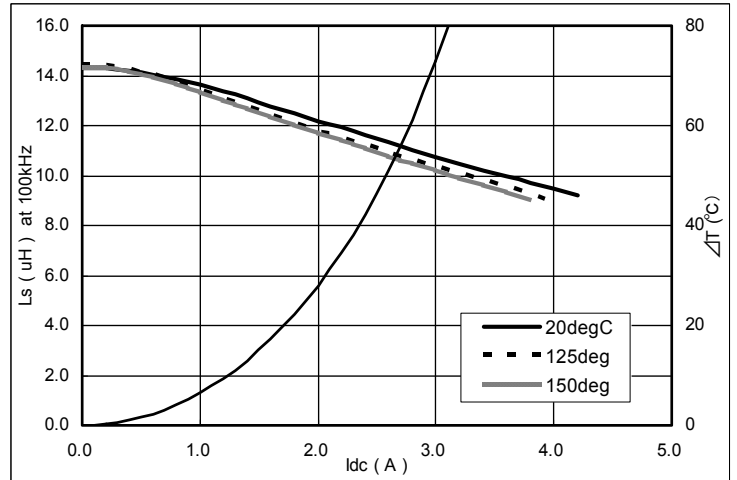
# CDMC50D38/T150



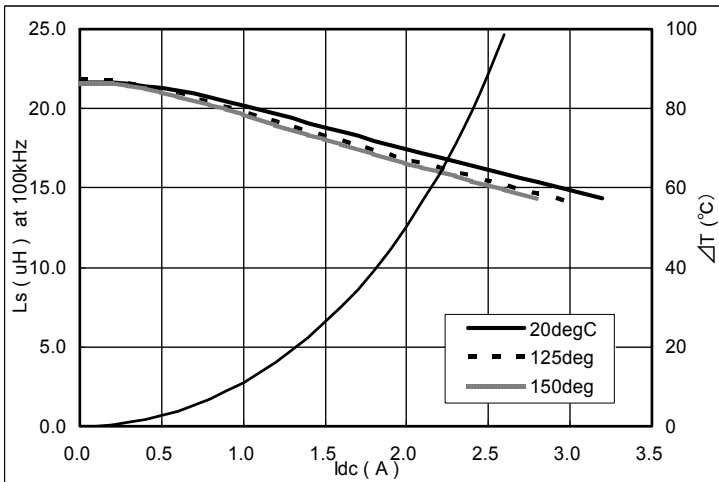
CDMC50D38T150NP-100MC



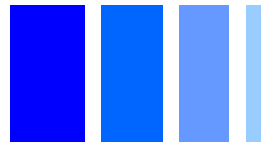
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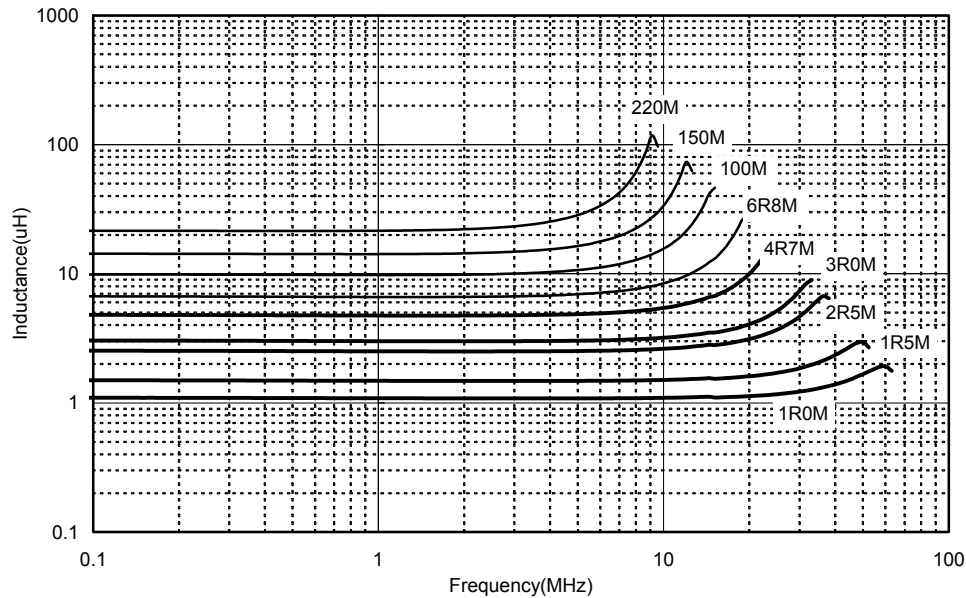
CDMC50D38T150NP-220MC



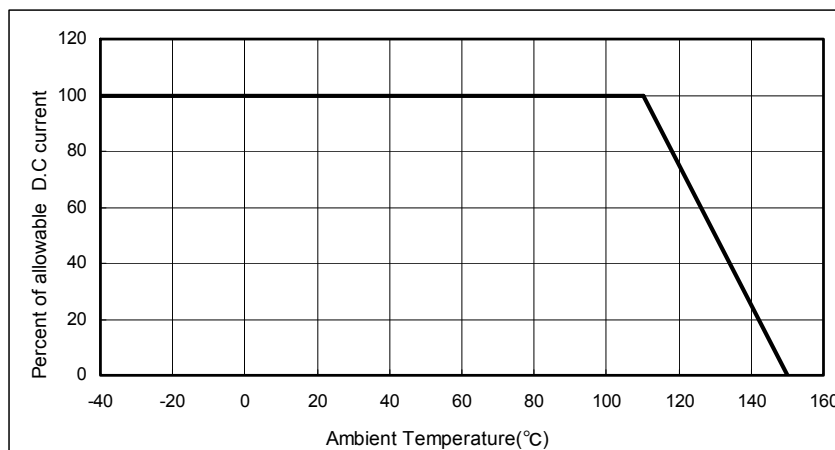
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## Inductance vs Frequency Graph



## Derating Curve



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