

# Low-Profile High Current Power Inductor CDEP15D90/T150



## Description

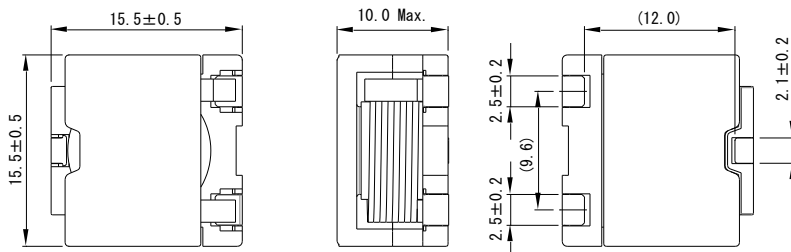
- Inductor for high withstand voltage (DC 120V) and large current
- Magnetically shielded
- Qualified AEC-Q200
- Operating temperature range: - 40°C~+150°C  
(including coil's self temperature rise)



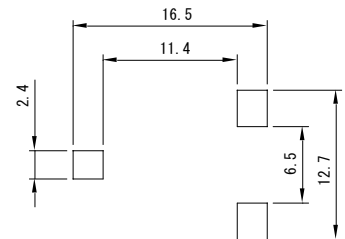
## Applications

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

## Dimension - [mm]



## Reference Land pattern - [mm]



Note : This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

# Low-Profile High Current Power Inductor CDEP15D90/T150



## Electrical Characteristics: Standard Types

Part No.	Inductance ( $\mu\text{H}$ ) ( $\pm 20\%$ ) ※1	D.C.R (m $\Omega$ ) ( $\pm 20\%$ )	Saturation Current (A) ※2		Temperature Rise current (A) ※3
			at 20°C	at 150°C	
CDEP15D90T150NP-0R5MC-125	0.50	1.20	63.0	43.0	33.5
CDEP15D90T150NP-1R2MC-125	1.20	1.75	41.9	28.5	24.5
CDEP15D90T150NP-2R0MC-125	2.00	2.40	31.0	22.0	23.0
CDEP15D90T150NP-3R3MC-125	3.30	2.90	25.0	17.0	18.5
CDEP15D90T150NP-4R7MC-125	4.70	3.50	21.3	14.8	16.5
CDEP15D90T150NP-6R2MC-125	6.20	4.90	18.5	13.0	14.8
CDEP15D90T150NP-100MC-125	10.0	7.90	15.0	10.5	12.5
CDEP15D90T150NP-120MC-125	12.5	8.90	12.8	9.50	12.2
CDEP15D90T150NP-150MC-125	15.0	10.6	12.0	8.20	8.50
CDEP15D90T150NP-220MC-125	22.0	14.5	9.70	6.60	7.50

## Electrical Characteristics: High Power Types

Part No.	Inductance ( $\mu\text{H}$ ) ( $\pm 20\%$ ) ※1	D.C.R (m $\Omega$ ) ( $\pm 20\%$ )	Saturation Current (A) ※2		Temperature Rise current (A) ※3
			at 20°C	at 150°C	
CDEP15D90T150NP-1R0MC-100	1.00	1.75	51.6	35.8	24.5
CDEP15D90T150NP-1R6MC-100	1.60	2.40	42.0	28.0	23.0
CDEP15D90T150NP-2R4MC-100	2.40	2.90	34.5	24.5	18.5
CDEP15D90T150NP-3R6MC-100	3.60	3.50	26.5	18.5	16.5
CDEP15D90T150NP-4R7MC-100	4.70	4.90	24.0	16.7	14.8
CDEP15D90T150NP-6R8MC-100	6.80	5.50	20.3	13.8	13.5
CDEP15D90T150NP-100MC-100	10.0	8.90	16.2	11.3	12.2
CDEP15D90T150NP-120MC-100	12.5	10.6	15.0	10.2	8.50
CDEP15D90T150NP-150MC-100	15.0	13.4	13.4	9.70	8.00
CDEP15D90T150NP-220MC-100	22.0	20.1	11.0	7.50	6.50

※ 1 Measuring frequency at 100kHz 0.1V

※ 2 Saturation current: This indicates the actual value of D.C. current when the inductance becomes 30% lower than its nominal value.

※ 3 Temperature rise current: The actual 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 while applying current with audio-frequency (AF) signals may results in audible noises due to magnetostriction. Also, in order to avoid an audible noise problem, operating with non-AF signals would be recommended. The noise amplify depending on the coil mount area on the PCB.

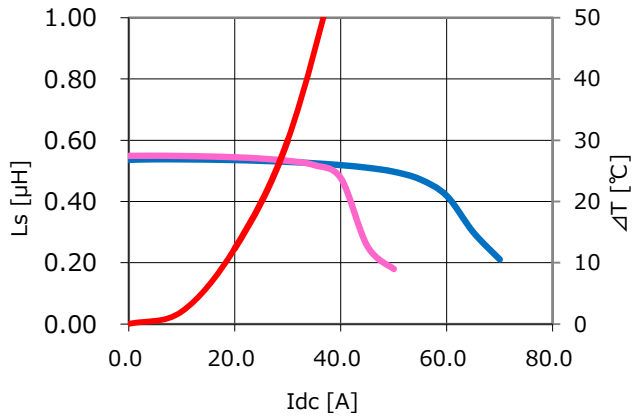
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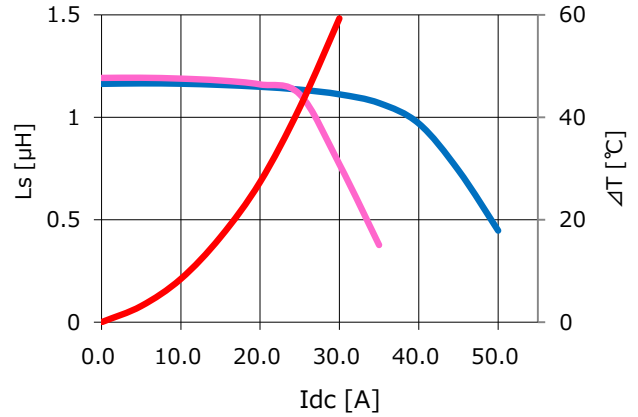


Saturation Current & Temperature Rise Graph — L (20°C) — L (150°C) —  $\Delta T$   
<Standard Types>

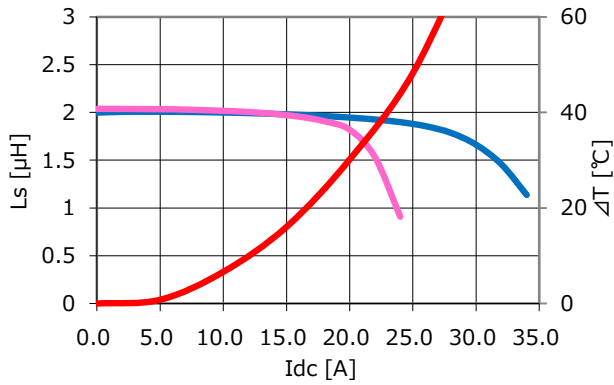
**CDEP15D90T150NP-0R5MC-125**



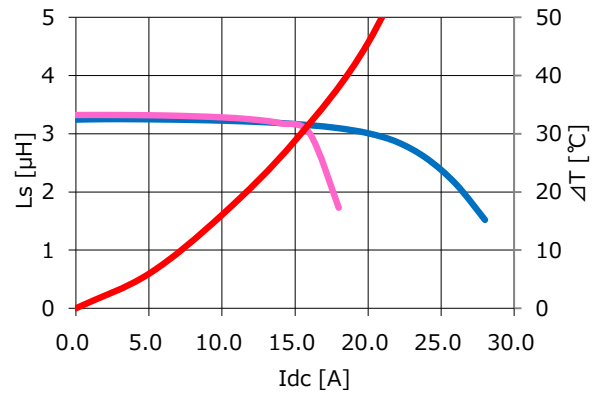
**CDEP15D90T150NP-1R2MC-125**



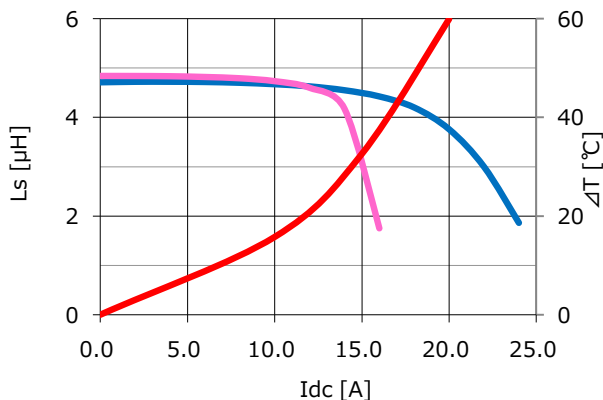
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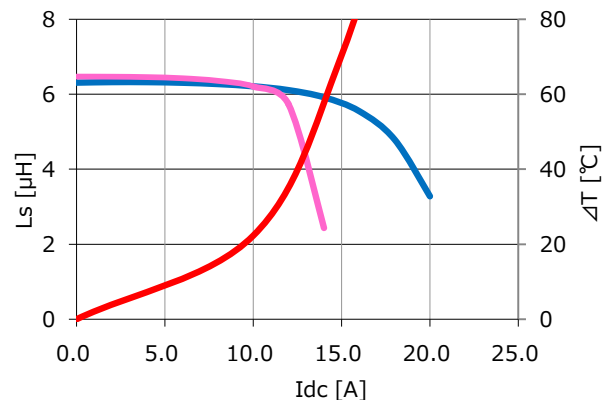
**CDEP15D90T150NP-3R3MC-125**



**CDEP15D90T150NP-4R7MC-125**



**CDEP15D90T150NP-6R2MC-125**



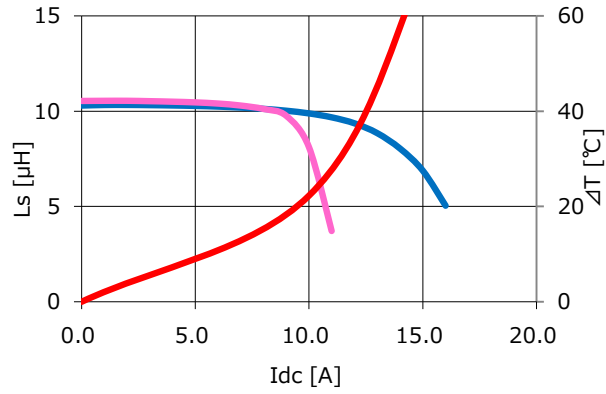
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# Low-Profile High Current Power Inductor

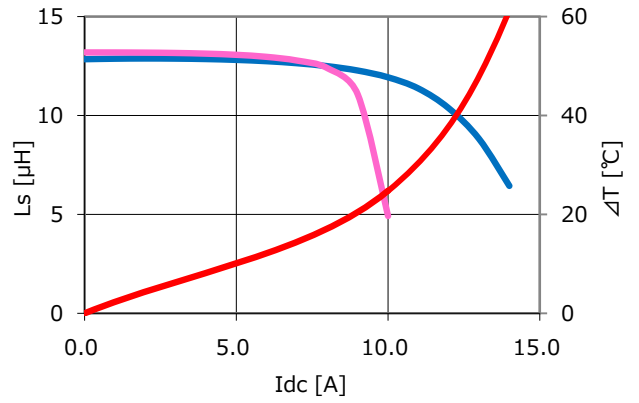
## CDEP15D90/T150



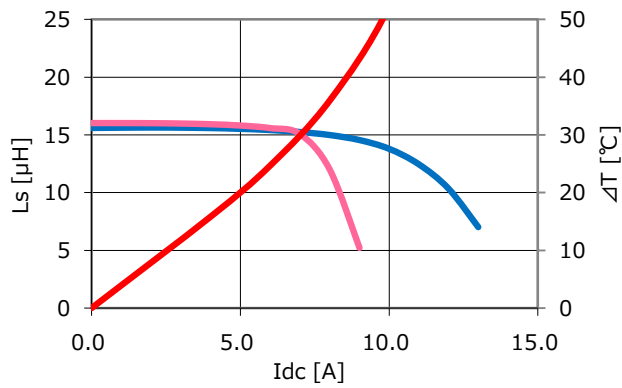
**CDEP15D90T150NP-100MC-125**



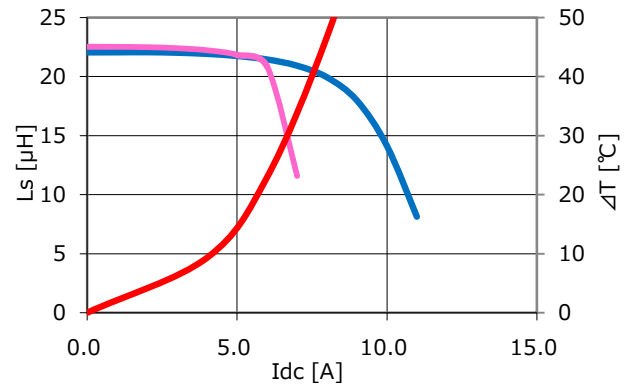
**CDEP15D90T150NP-120MC-125**



**CDEP15D90T150NP-150MC-125**



**CDEP15D90T150NP-220MC-125**



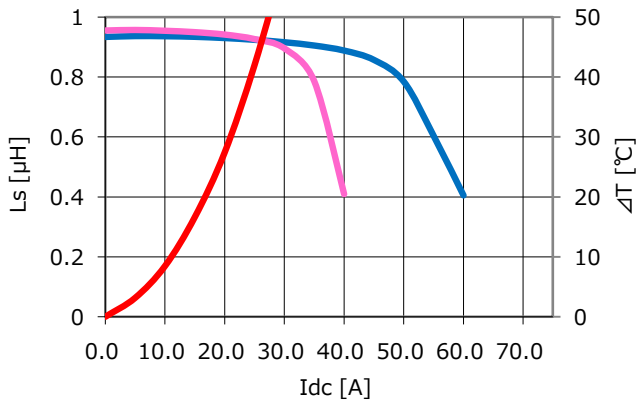
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# Low-Profile High Current Power Inductor CDEP15D90/T150

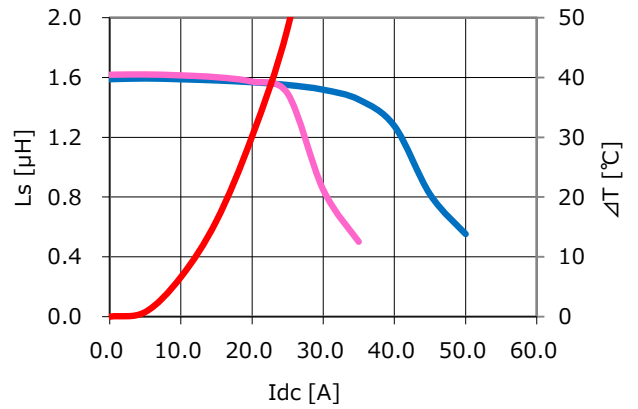


Saturation Current & Temperature Rise Graph — L (20°C) — L (150°C) —  $\Delta T$   
<High Power Types>

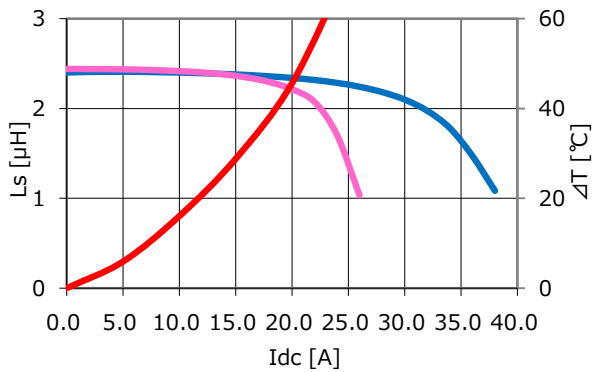
**CDEP15D90T150NP-1R0MC-100**



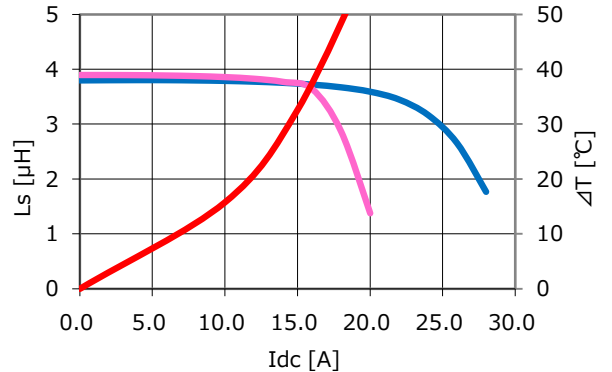
**CDEP15D90T150NP-1R6MC-100**



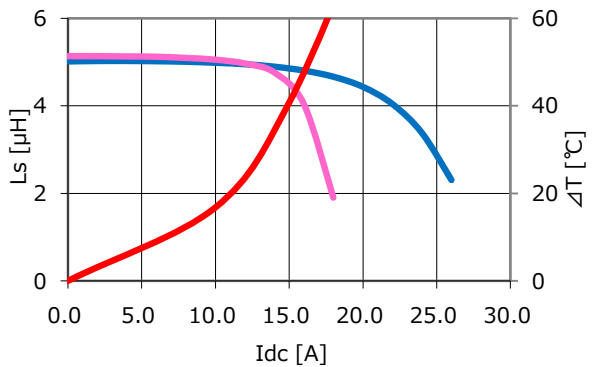
**CDEP15D90T150NP-2R4MC-100**



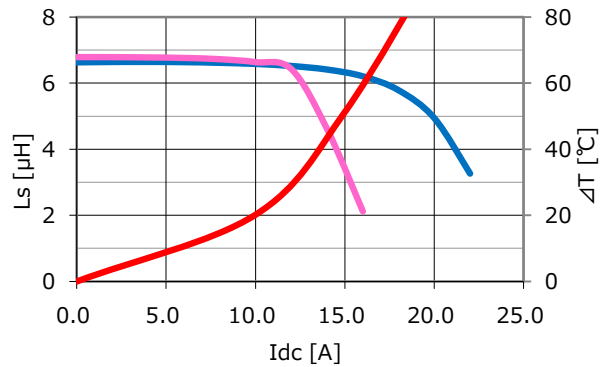
**CDEP15D90T150NP-3R6MC-100**



**CDEP15D90T150NP-4R7MC-100**



**CDEP15D90T150NP-6R8MC-100**

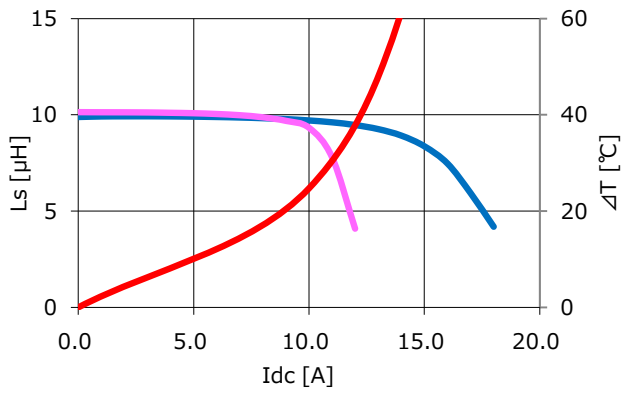


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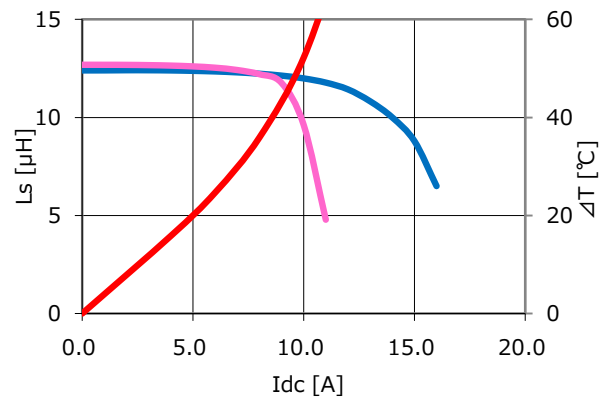
# Low-Profile High Current Power Inductor CDEP15D90/T150



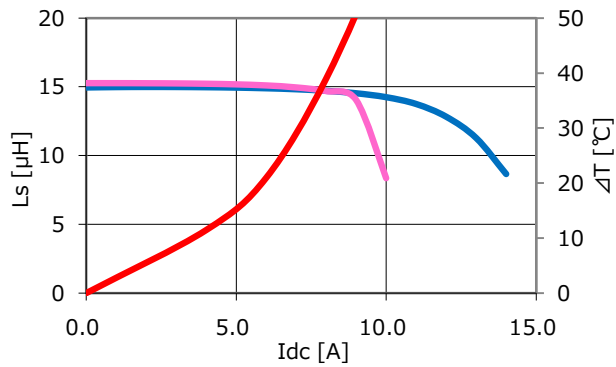
CDEP15D90T150NP-100MC-100



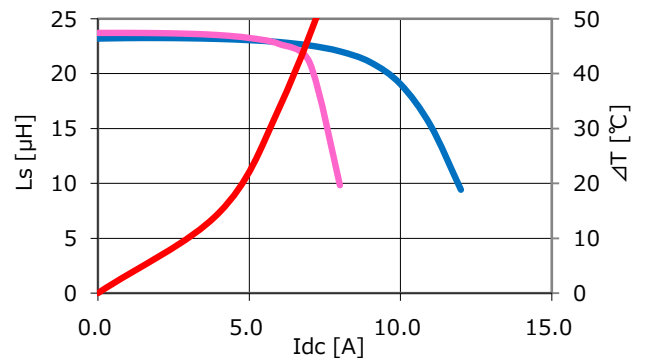
CDEP15D90T150NP-120MC-100



CDEP15D90T150NP-150MC-100



CDEP15D90T150NP-220MC-100



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