

Low-Profile High Current Power Inductor CDEP15D90/T150



Description

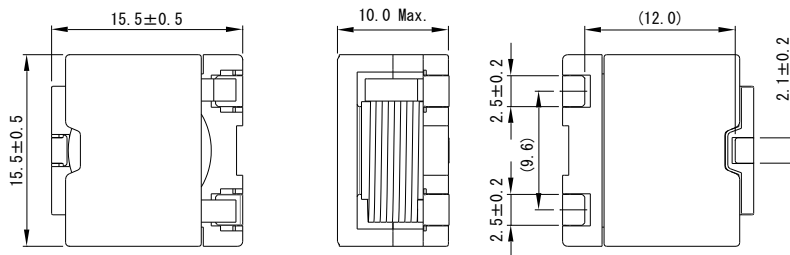
- Inductor for high withstand voltage (DC 120V) and large current
- Magnetically shielded
- Qualified AEC-Q200
- Operating temperature range: - 40°C~+150°C
(including coil's self temperature rise)



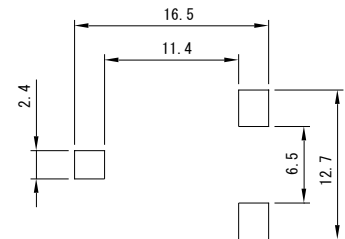
Applications

- 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.

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CDEP15D90/T150



Electrical Characteristics: Standard Types

Part No.	Inductance (μ H) ($\pm 20\%$) ※1	D.C.R (m Ω) ($\pm 20\%$) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise current (A) Max. (Typ.) ※3
			at 20°C	at 150°C	
CDEP15D90T150NP-0R5MC-125	0.50	1.44 (1.20)	50.4 (63.0)	34.4 (43.0)	30.0 (33.5)
CDEP15D90T150NP-1R2MC-125	1.20	2.10 (1.75)	33.5 (41.9)	22.8 (28.5)	21.0 (24.5)
CDEP15D90T150NP-2R0MC-125	2.00	2.88 (2.40)	24.8 (31.0)	17.6 (22.0)	20.0 (23.0)
CDEP15D90T150NP-3R3MC-125	3.30	3.48 (2.90)	20.0 (25.0)	13.6 (17.0)	15.5 (18.5)
CDEP15D90T150NP-4R7MC-125	4.70	4.20 (3.50)	17.0 (21.3)	11.8 (14.8)	14.5 (16.5)
CDEP15D90T150NP-6R2MC-125	6.20	5.88 (4.90)	14.8 (18.5)	10.4 (13.0)	13.2 (14.8)
CDEP15D90T150NP-100MC-125	10.0	9.48 (7.90)	12.0 (15.0)	8.40 (10.5)	11.3 (12.5)
CDEP15D90T150NP-120MC-125	12.5	10.7 (8.90)	10.2 (12.8)	7.60 (9.50)	10.9 (12.2)
CDEP15D90T150NP-150MC-125	15.0	12.7 (10.6)	9.60 (12.0)	6.70 (8.20)	7.00 (8.50)
CDEP15D90T150NP-220MC-125	22.0	17.4 (14.5)	7.70 (9.70)	5.30 (6.60)	6.70 (7.50)

Electrical Characteristics: High Power Types

Part No.	Inductance (μ H) ($\pm 20\%$) ※1	D.C.R (m Ω) ($\pm 20\%$) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise current (A) Max. (Typ.) ※3
			at 20°C	at 150°C	
CDEP15D90T150NP-1R0MC-100	1.00	2.10 (1.75)	41.3 (51.6)	28.6 (35.8)	21.0 (24.5)
CDEP15D90T150NP-1R6MC-100	1.60	2.88 (2.40)	33.6 (42.0)	22.4 (28.0)	20.0 (23.0)
CDEP15D90T150NP-2R4MC-100	2.40	3.48 (2.90)	27.6 (34.5)	19.6 (24.5)	15.5 (18.5)
CDEP15D90T150NP-3R6MC-100	3.60	4.20 (3.50)	21.2 (26.5)	14.8 (18.5)	14.5 (16.5)
CDEP15D90T150NP-4R7MC-100	4.70	5.88 (4.90)	19.2 (24.0)	13.3 (16.7)	13.2 (14.8)
CDEP15D90T150NP-6R8MC-100	6.80	6.60 (5.50)	16.3 (20.3)	11.0 (13.8)	12.1 (13.5)
CDEP15D90T150NP-100MC-100	10.0	10.7 (8.90)	13.0 (16.2)	9.30 (11.3)	10.9 (12.2)
CDEP15D90T150NP-120MC-100	12.5	12.7 (10.6)	12.0 (15.0)	8.20 (10.2)	7.00 (8.50)
CDEP15D90T150NP-150MC-100	15.0	16.1 (13.4)	10.7 (13.4)	7.70 (9.70)	6.90 (8.00)
CDEP15D90T150NP-220MC-100	22.0	24.1 (20.1)	8.80 (11.0)	6.00 (7.50)	5.70 (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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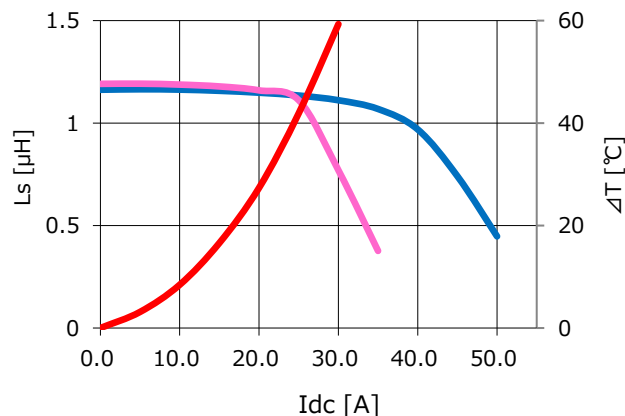
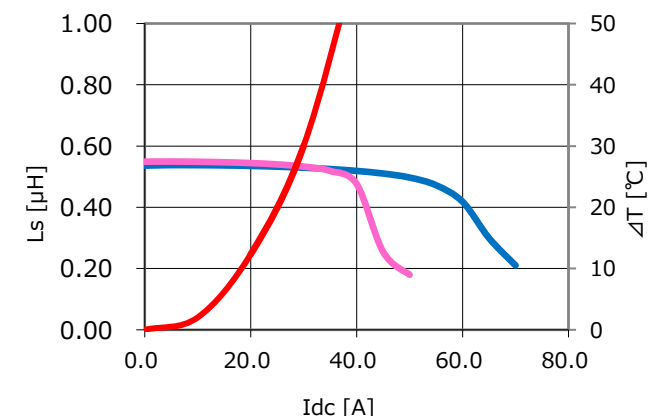
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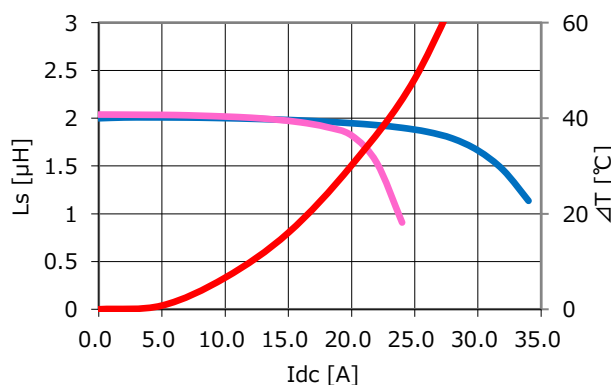


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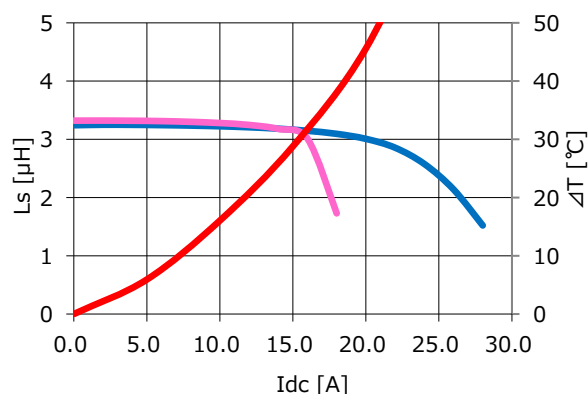
Saturation Current & Temperature Rise Graph — L (20°C) — L (150°C) — ΔT



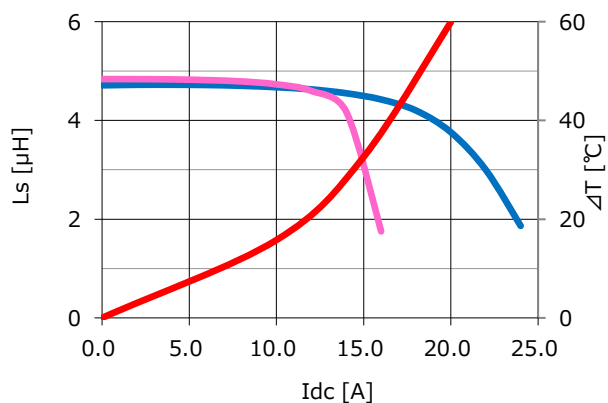
CDEP15D90T150NP-2R0MC-125



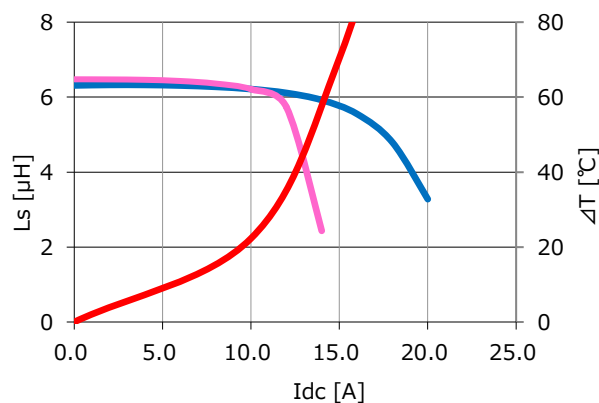
CDEP15D90T150NP-3R3MC-125



CDEP15D90T150NP-4R7MC-125



CDEP15D90T150NP-6R2MC-125



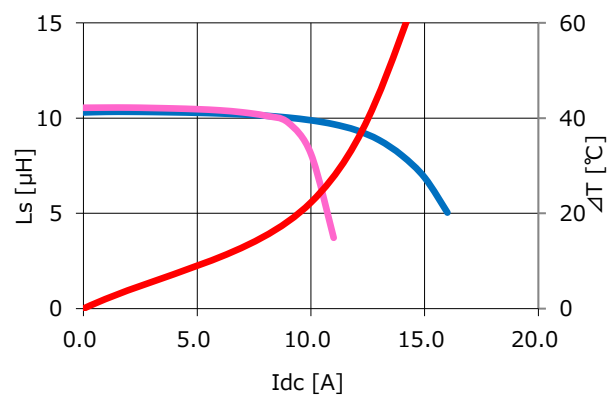
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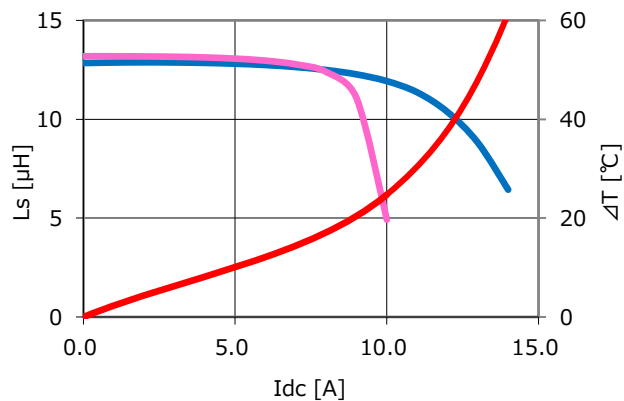
CDEP15D90/T150



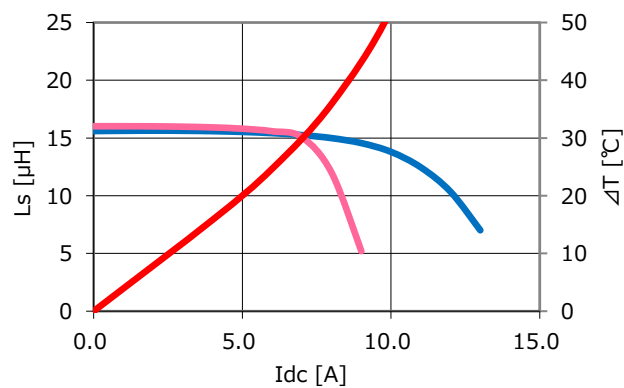
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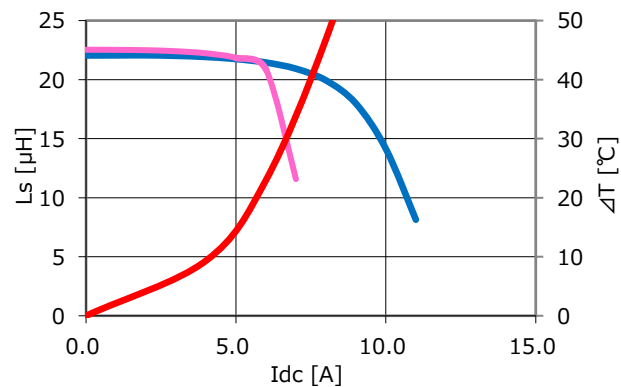
CDEP15D90T150NP-120MC-125



CDEP15D90T150NP-150MC-125



CDEP15D90T150NP-220MC-125



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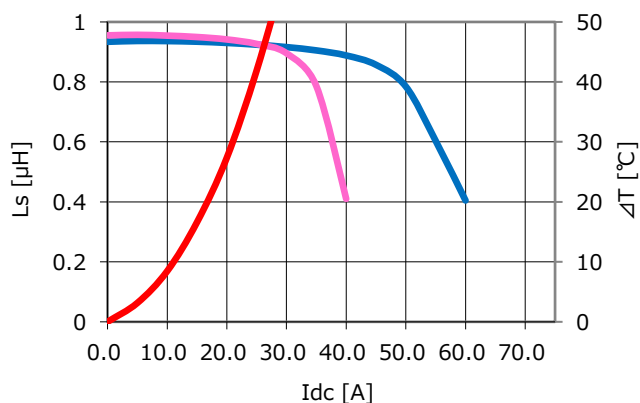
CDEP15D90/T150



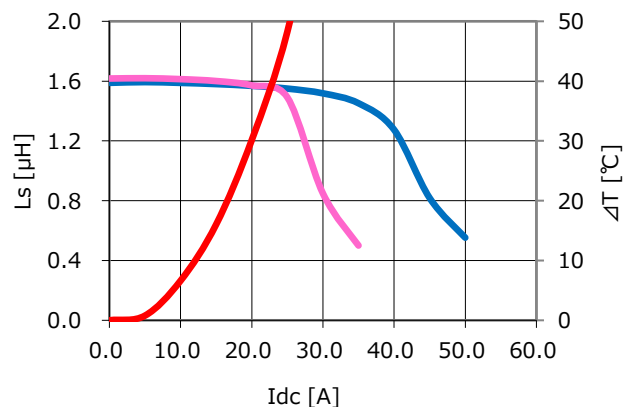
<High Power Types>

Saturation Current & Temperature Rise Graph — L (20°C) — L (150°C) — ΔT

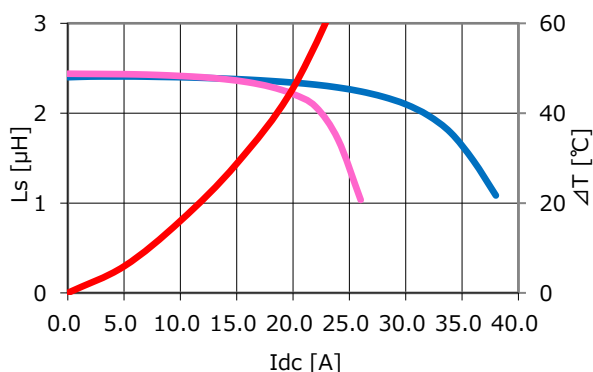
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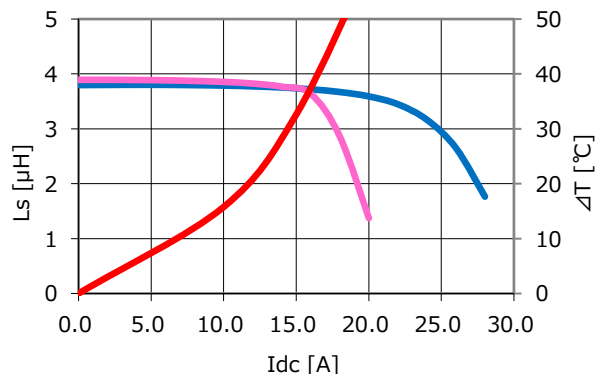
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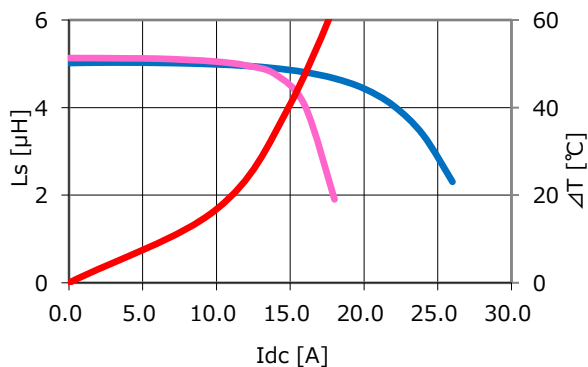
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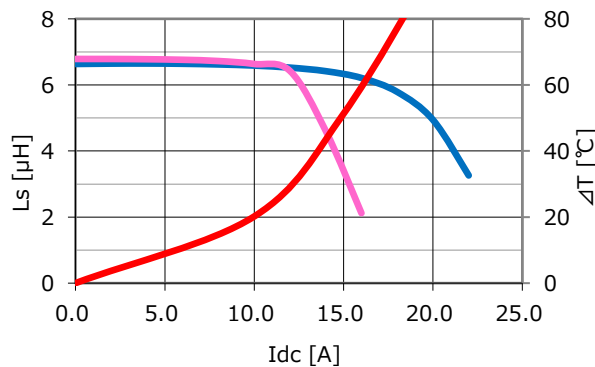
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CDEP15D90T150NP-4R7MC-100



CDEP15D90T150NP-6R8MC-100



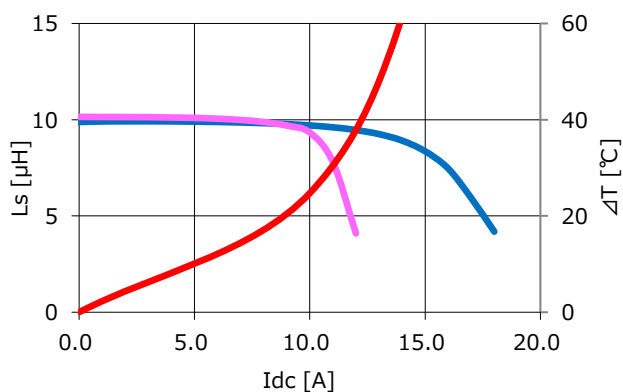
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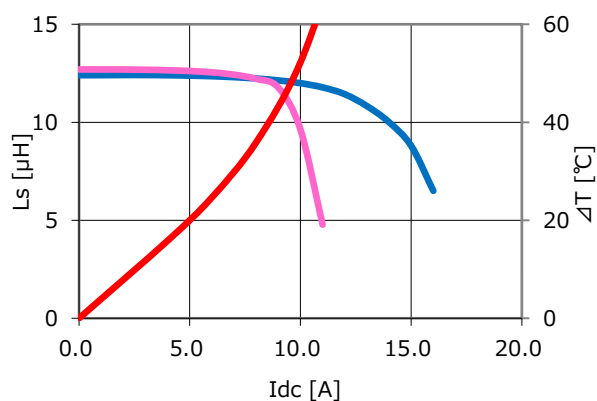
CDEP15D90/T150



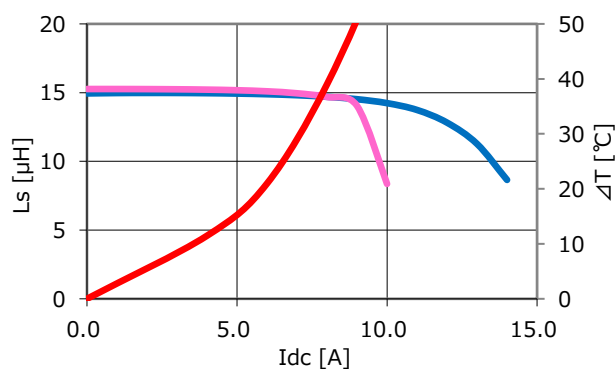
CDEP15D90T150NP-100MC-100



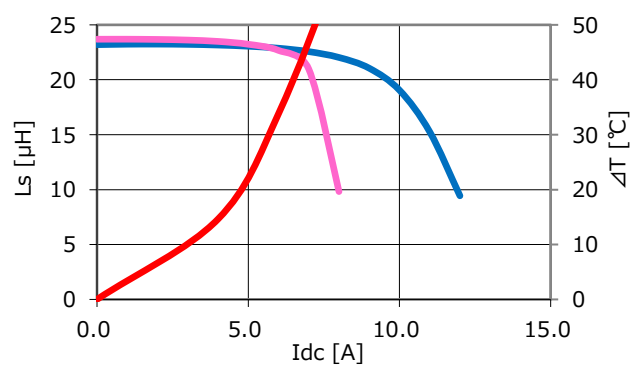
CDEP15D90T150NP-120MC-100



CDEP15D90T150NP-150MC-100



CDEP15D90T150NP-220MC-100



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