

SMD Coupled Inductor CDRH127B



Discriptions

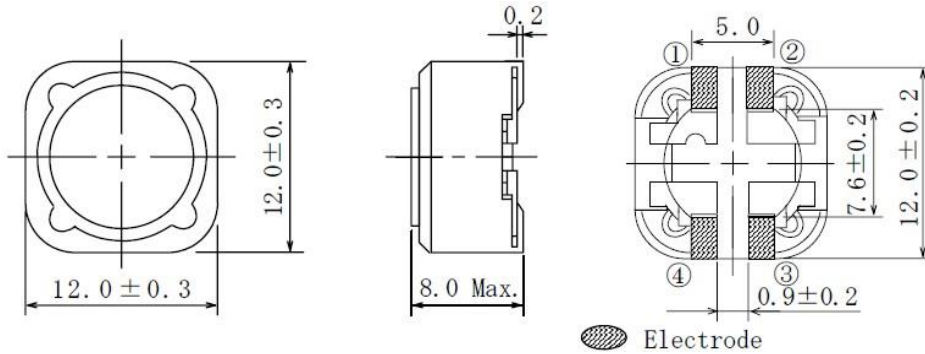
- Ferrite drum ring structure
- Magnetically Shielded
- Qualified AEC-Q200
- 2 coils in 1 package for Sepic topology
- Operating temperature range: -40°C~ +125°C
(Including self-heating)



Applications

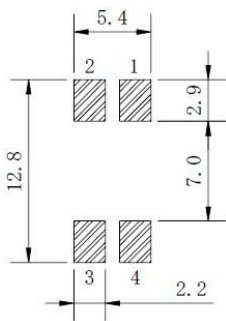
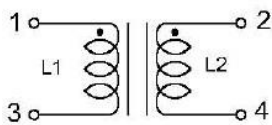
- Recommended for automotive SEPIC converter especially LED headlight and audio

Dimension - [mm]

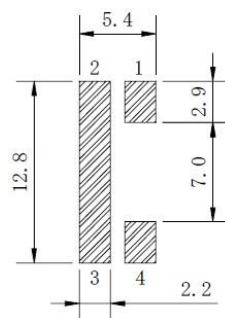
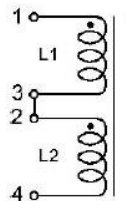


Reference Land pattern – [mm]

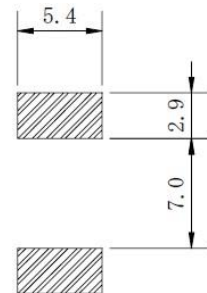
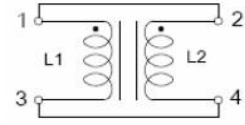
(1) Single winding



(2) Leads connected in series



(3) Leads connected in parallel

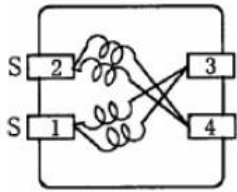


Connection

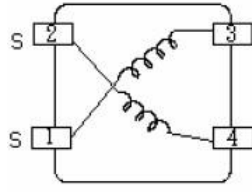
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SMD Coupled Inductor

CDRH127B



(4.7 μ H ~ 47 μ H)



(68 μ H ~ 470 μ H)

Electrical Characteristics

【Single winding (Pin1 to Pin3 or Pin2 to Pin4)】

Part No.	Inductance (μ H) ※1	D.C.R. (m Ω) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2	Temperature Rise Current (A) Max. (Typ.) ※3
CDRH127BNP-4R7NC	4.7 \pm 30%	29.0m(22.0m)	10.0 (13.0)	(5.00)
CDRH127BNP-6R3NC	6.3 \pm 30%	35.0m(27.0m)	8.20 (10.4)	(4.80)
CDRH127BNP-100NC	10 \pm 30%	41.0m(32.0m)	7.00 (8.80)	(4.30)
CDRH127BNP-150PC	15 \pm 25%	54.0m(42.0m)	6.00 (7.60)	(4.10)
CDRH127BNP-220PC	22 \pm 25%	84.0m(65.0m)	5.00 (6.20)	(2.90)
CDRH127BNP-330PC	33 \pm 25%	124m(96.0m)	4.00 (5.00)	(2.40)
CDRH127BNP-470PC	47 \pm 25%	156m(120m)	3.30 (4.10)	(2.10)
CDRH127BNP-680PC	68 \pm 25%	286m(220m)	2.70 (3.40)	(1.50)
CDRH127BNP-101PC	100 \pm 25%	438m(350m)	2.30 (2.90)	(1.30)
CDRH127BNP-151PC	150 \pm 25%	519m(415m)	1.70 (2.20)	(1.10)
CDRH127BNP-221PC	220 \pm 25%	821m(657m)	1.50 (1.90)	(900m)
CDRH127BNP-331PC	330 \pm 25%	1.24(990m)	1.20 (1.50)	(700m)
CDRH127BNP-471PC	470 \pm 25%	1.88(1.50)	900m (1.20)	(600m)

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【Leads connected in series (Pin1 to Pin4, Pin2 and Pin3 short)】

Part No.	Inductance (μ H) ※1	D.C.R. (m Ω) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2	Temperature Rise Current (A) Max. (Typ.) ※3
CDRH127BNP-4R7NC	18.8 \pm 30%	58.0m (44.0m)	5.00 (6.70)	(3.50)
CDRH127BNP-6R3NC	25.2 \pm 30%	70.0m(54.0m)	4.10 (5.20)	(3.40)
CDRH127BNP-100NC	40 \pm 30%	82.0m (64.0m)	3.50 (4.40)	(3.20)
CDRH127BNP-150PC	60 \pm 25%	108m (84.0m)	3.00 (3.80)	(2.70)
CDRH127BNP-220PC	88 \pm 25%	168m (130m)	2.50 (3.10)	(2.10)
CDRH127BNP-330PC	132 \pm 25%	248m (192m)	2.00 (2.50)	(1.70)
CDRH127BNP-470PC	188 \pm 25%	312m (240m)	1.65 (2.10)	(1.50)
CDRH127BNP-680PC	272 \pm 25%	572m (440m)	1.35 (1.70)	(1.10)
CDRH127BNP-101PC	400 \pm 25%	876m (700m)	1.20 (1.50)	(900m)
CDRH127BNP-151PC	600 \pm 25%	1.04 (830m)	850m (1.10)	(800m)
CDRH127BNP-221PC	880 \pm 25%	1.64 (1.31)	750m (950m)	(600m)
CDRH127BNP-331PC	1320 \pm 25%	2.48(1.98)	600m (750m)	(500m)
CDRH127BNP-471PC	1880 \pm 25%	3.76 (3.00)	450m (600m)	(400m)

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【Leads connected in parallel (Pin1,2 to Pin3,4, Pin1 and Pin2, Pin3 and Pin4) short 】

Part No.	Inductance (μ H) ※1	D.C.R. (m Ω) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2	Temperature Rise Current (A) Max. (Typ.) ※3
CDRH127BNP-4R7NC	4.7 \pm 30%	14.5m(11m)	10.0 (13.0)	(7.00)
CDRH127BNP-6R3NC	6.3 \pm 30%	17.5m(13.5m)	8.20 (10.4)	(6.80)
CDRH127BNP-100NC	10 \pm 30%	20.5m(16m)	7.00 (8.80)	(6.40)
CDRH127BNP-150PC	15 \pm 25%	27m(21m)	6.00 (7.60)	(5.40)
CDRH127BNP-220PC	22 \pm 25%	42m(32.5m)	5.00 (6.20)	(4.20)
CDRH127BNP-330PC	33 \pm 25%	62m(48m)	4.00 (5.00)	(3.40)
CDRH127BNP-470PC	47 \pm 25%	78m(60m)	3.30 (4.10)	(3.00)
CDRH127BNP-680PC	68 \pm 25%	143m(110m)	2.70 (3.40)	(2.20)
CDRH127BNP-101PC	100 \pm 25%	219m(175m)	2.30 (2.90)	(1.80)
CDRH127BNP-151PC	150 \pm 25%	260m(207.5m)	1.70 (2.20)	(1.60)
CDRH127BNP-221PC	220 \pm 25%	410m(328.5m)	1.50 (1.90)	(1.20)
CDRH127BNP-331PC	330 \pm 25%	620m(495m)	1.20 (1.50)	(1.00)
CDRH127BNP-471PC	470 \pm 25%	940m(755m)	900m (1.20)	(800m)

※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 initial value.

※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes $\Delta T=40^{\circ}\text{C}$. ($T_a=20^{\circ}\text{C}$)

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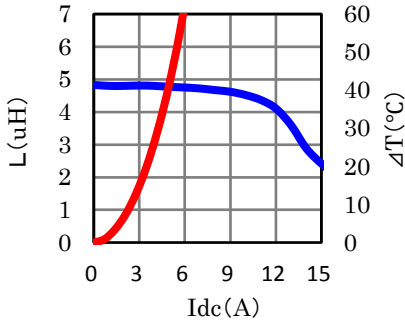
SMD Coupled Inductor CDRH127B



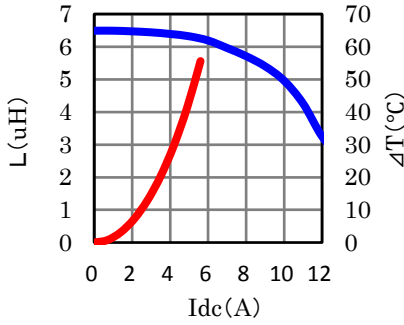
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Saturation Current & Temperature Rise Graph — L (25°C) — ΔT

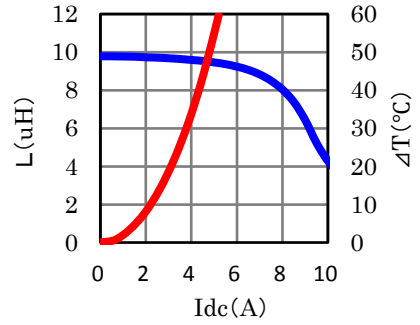
CDRH127BNP-4R7NC



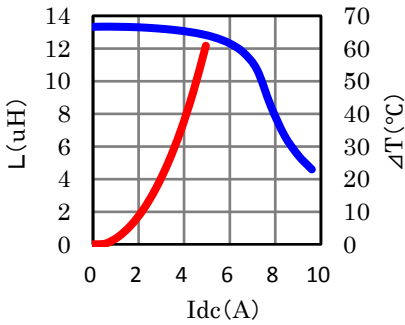
CDRH127BNP-6R3NC



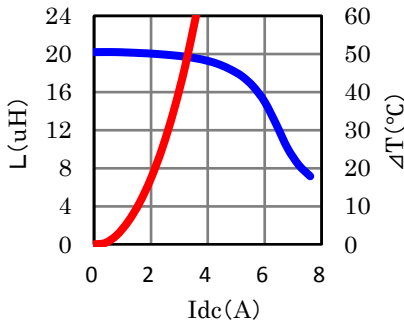
CDRH127BNP-100NC



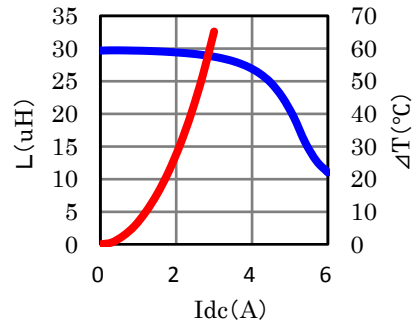
CDRH127BNP-150PC



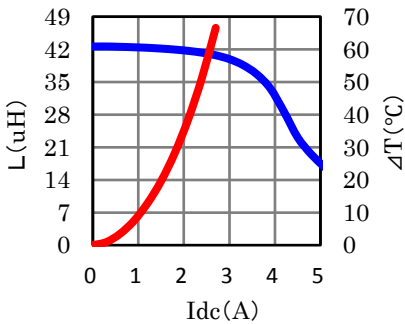
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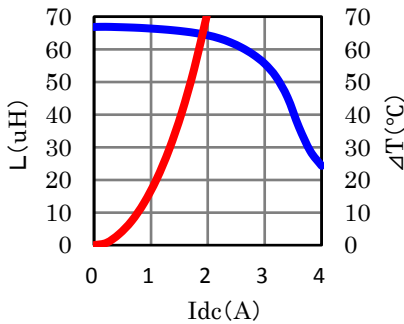
CDRH127BNP-330PC



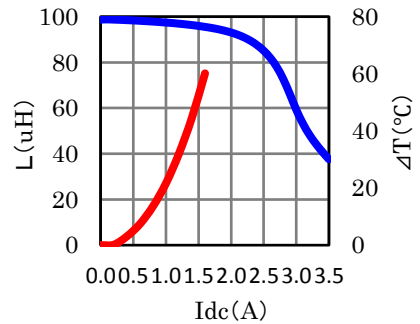
CDRH127BNP-470PC



CDRH127BNP-680PC



CDRH127BNP-101PC



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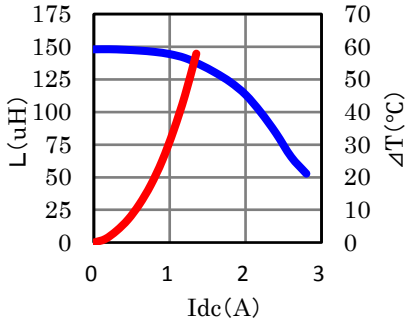
CDRH127B



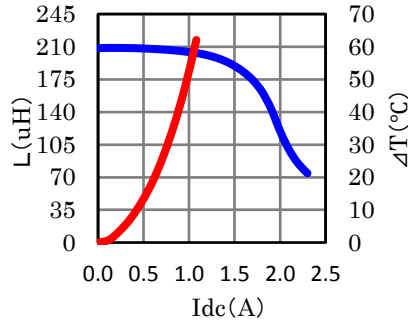
3-2-1. Single Winding (Pin1 to Pin3 or Pin2 to Pin4)

Saturation Current & Temperature Rise Graph — L (25°C) — ΔT

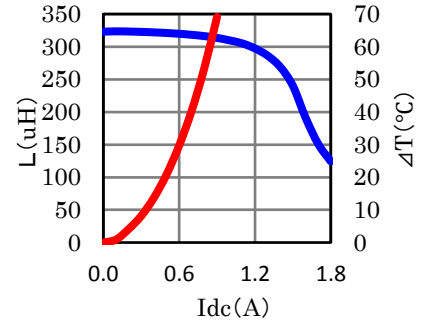
CDRH127BNP-151PC



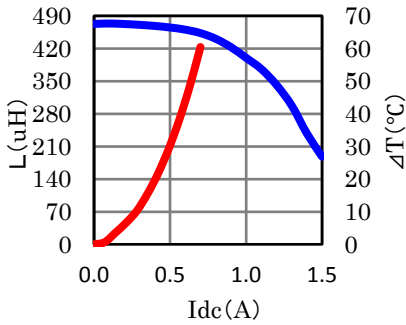
CDRH127BNP-221PC



CDRH127BNP-331PC



CDRH127BNP-471PC



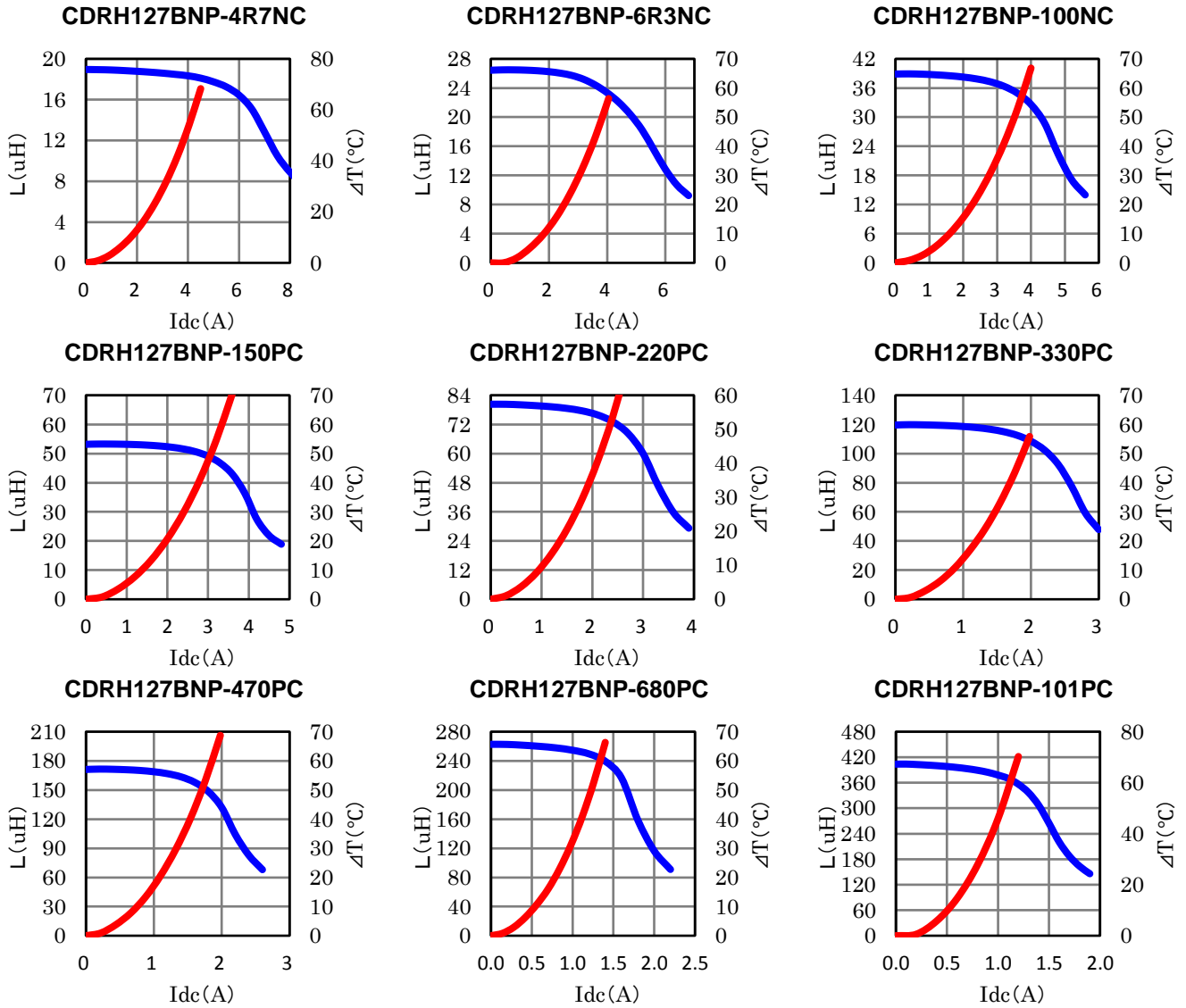
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3-2-2. Leads connected in series (Pin1 to Pin4, Pin2 and Pin3 short)

Saturation Current & Temperature Rise Graph — L (25°C) — ΔT



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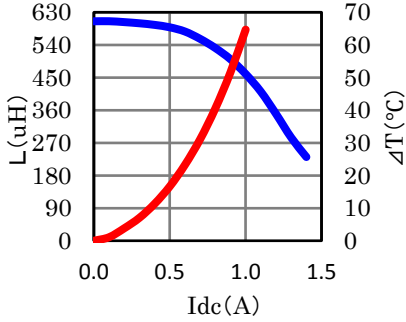
CDRH127B



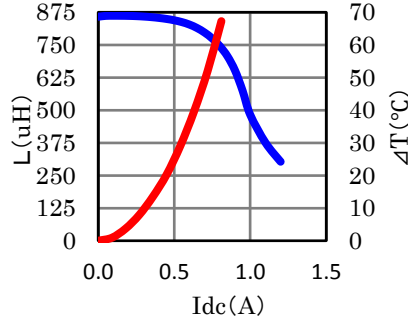
3-2-2. Leads connected in series (Pin1 to Pin4, Pin2 and Pin3 short)

Saturation Current & Temperature Rise Graph — L (25°C) — ΔT

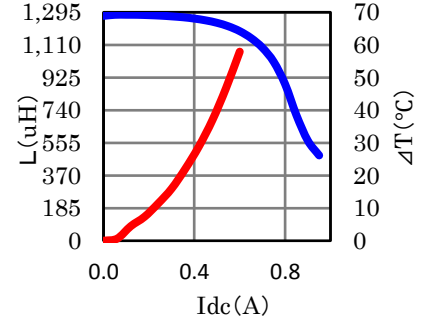
CDRH127BNP-151PC



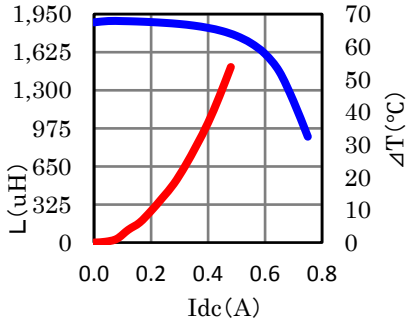
CDRH127BNP-221PC



CDRH127BNP-331PC



CDRH127BNP-471PC



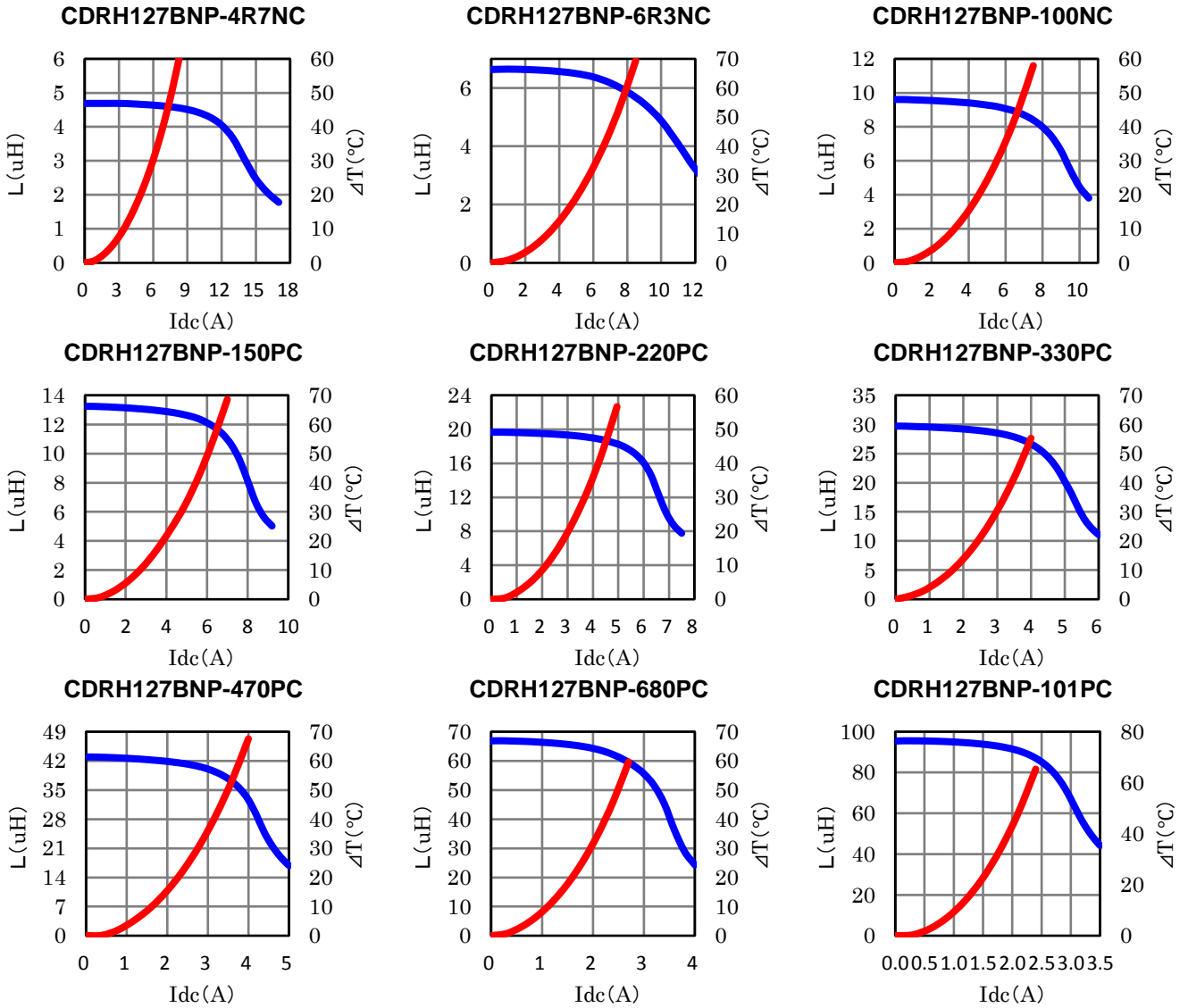
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3-2-3. Leads connected in parallel (Pin1,2 to Pin3,4, Pin1 and Pin2, Pin3 and Pin4 short)

Saturation Current & Temperature Rise Graph — L (25°C) — ΔT



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SMD Coupled Inductor

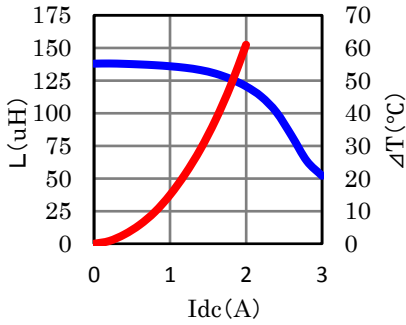
CDRH127B



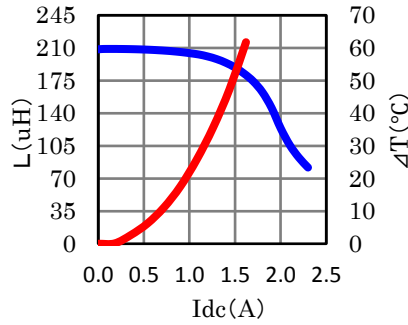
3-2-3. Leads connected in parallel (Pin1,2 to Pin3,4, Pin1 and Pin2, Pin3 and Pin4 short)

Saturation Current & Temperature Rise Graph — L (25°C) — ΔT

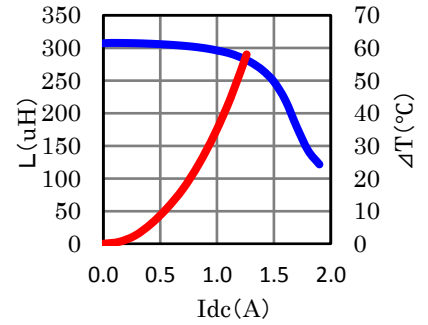
CDRH127BNP-151PC



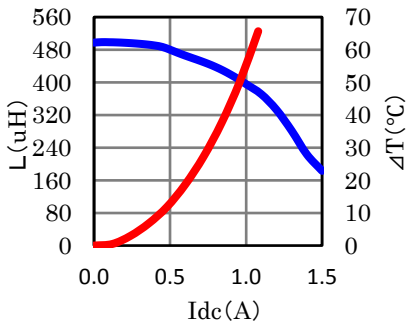
CDRH127BNP-221PC



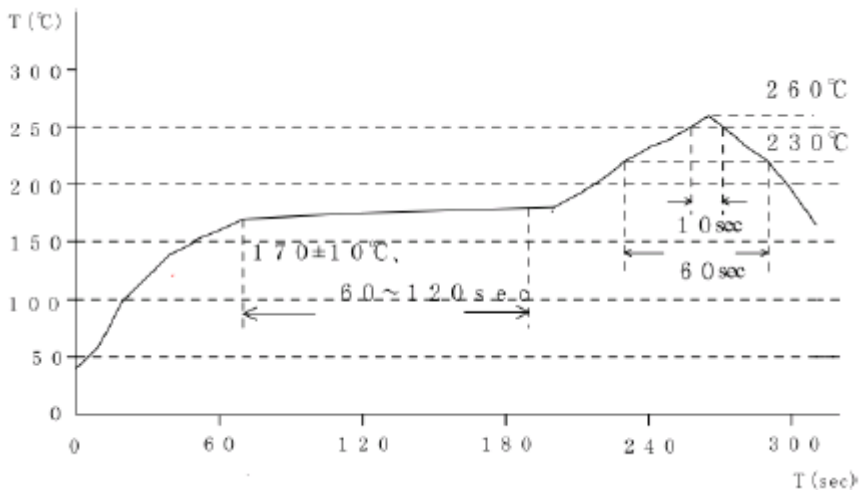
CDRH127BNP-331PC



CDRH127BNP-471PC



Solder Reflow Condition



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