

SMD Coupled Inductor CDRH127B



Discriptions

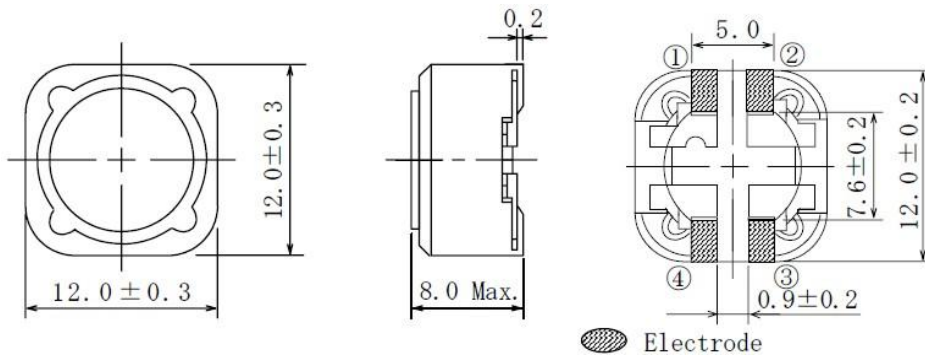
- Ferrite drum ring structure
- Magnetically Shielded
- Qualified AEC-Q200
- 2 coils in 1 package for Sepic topology
- Operating temperature range: -40°C~ +125°C
(Including self-heating)



Applications

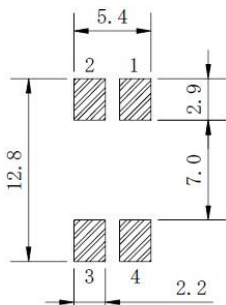
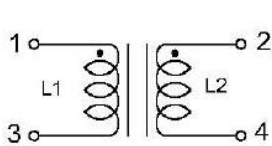
- Automotive SEPIC/ZETA converter

Dimension - [mm]

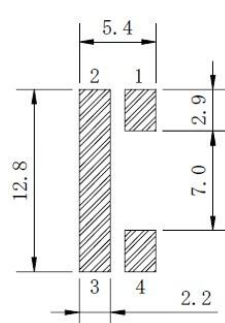
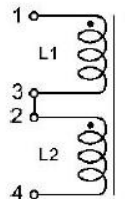


Reference Land pattern – [mm]

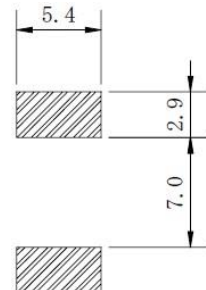
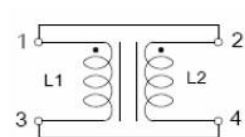
(1) Single winding



(2) Leads connected in series



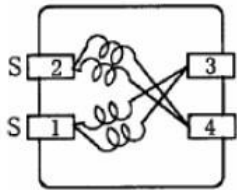
(3) Leads connected in parallel



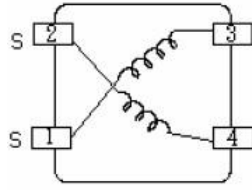
Connection

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) ($\pm 20\%$) ※1	D.C.R. (m Ω) Max.(Typ.)	Saturation Current (A) ※2	Temperature Rise Current (A) ※3
CDRH127BNP-4R7NC	4.7 $\pm 30\%$	29m(22m)	10.0	5.0
CDRH127BNP-6R3NC	6.3 $\pm 30\%$	35m(27m)	8.2	4.8
CDRH127BNP-100NC	10 $\pm 30\%$	41m(32m)	7.0	4.3
CDRH127BNP-150PC	15 $\pm 25\%$	54m(42m)	6.0	4.1
CDRH127BNP-220PC	22 $\pm 25\%$	84m(65m)	5.0	2.9
CDRH127BNP-330PC	33 $\pm 25\%$	124m(96m)	4.0	2.4
CDRH127BNP-470PC	47 $\pm 25\%$	156m(120m)	3.3	2.1
CDRH127BNP-680PC	68 $\pm 25\%$	286m(220m)	2.7	1.5
CDRH127BNP-101PC	100 $\pm 25\%$	438m(350m)	2.3	1.3
CDRH127BNP-151PC	150 $\pm 25\%$	519m(415m)	1.7	1.1
CDRH127BNP-221PC	220 $\pm 25\%$	821m(657m)	1.5	900m
CDRH127BNP-331PC	330 $\pm 25\%$	1.24(990m)	1.2	700m
CDRH127BNP-471PC	470 $\pm 25\%$	1.88(2.50)	900m	600m

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CDRH127B



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

Part No.	Inductance (μ H) ($\pm 20\%$) ※1	D.C.R. (m Ω) Max.(Typ.)	Saturation Current (A) ※2	Temperature Rise Current (A) ※3
CDRH127BNP-4R7NC	4.7 $\pm 30\%$	58m(44m)	5.0	3.5
CDRH127BNP-6R3NC	6.3 $\pm 30\%$	70m(54m)	4.1	3.4
CDRH127BNP-100NC	10 $\pm 30\%$	82m(64m)	3.5	3.2
CDRH127BNP-150PC	15 $\pm 25\%$	108m(84m)	3.0	2.7
CDRH127BNP-220PC	22 $\pm 25\%$	168m(130m)	2.5	2.1
CDRH127BNP-330PC	33 $\pm 25\%$	248m(192m)	2.0	1.7
CDRH127BNP-470PC	47 $\pm 25\%$	312m(240m)	1.65	1.5
CDRH127BNP-680PC	68 $\pm 25\%$	572m(440m)	1.35	1.1
CDRH127BNP-101PC	100 $\pm 25\%$	876m(700m)	1.2	900m
CDRH127BNP-151PC	150 $\pm 25\%$	1.04(830m)	850m	800m
CDRH127BNP-221PC	220 $\pm 25\%$	1.64(1.31)	750m	600m
CDRH127BNP-331PC	330 $\pm 25\%$	2.48(1.98)	600m	500m
CDRH127BNP-471PC	470 $\pm 25\%$	3.76(3.00)	450m	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) ($\pm 20\%$) ※1	D.C.R (m Ω) Max.(Typ.)	Saturation Current (A) ※2	Temperature Rise Current (A) ※3
CDRH127BNP-4R7NC	4.7 $\pm 30\%$	14.5m(11m)	10.0	7.0
CDRH127BNP-6R3NC	6.3 $\pm 30\%$	17.5m(13.5m)	8.2	6.8
CDRH127BNP-100NC	10 $\pm 30\%$	20.5m(16m)	7.0	6.4
CDRH127BNP-150PC	15 $\pm 25\%$	27m(21m)	6.0	5.4
CDRH127BNP-220PC	22 $\pm 25\%$	42m(32.5m)	5.0	4.2
CDRH127BNP-330PC	33 $\pm 25\%$	62m(48m)	4.0	3.4
CDRH127BNP-470PC	47 $\pm 25\%$	78m(60m)	3.3	3.0
CDRH127BNP-680PC	68 $\pm 25\%$	143m(110m)	2.7	2.2
CDRH127BNP-101PC	100 $\pm 25\%$	210m(175m)	2.3	1.8
CDRH127BNP-151PC	150 $\pm 25\%$	260m(207.5m)	1.7	1.6
CDRH127BNP-221PC	220 $\pm 25\%$	410m(328.5m)	1.5	1.2
CDRH127BNP-331PC	330 $\pm 25\%$	620m(495m)	1.2	1.0
CDRH127BNP-471PC	470 $\pm 25\%$	1.88(755m)	900m	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.

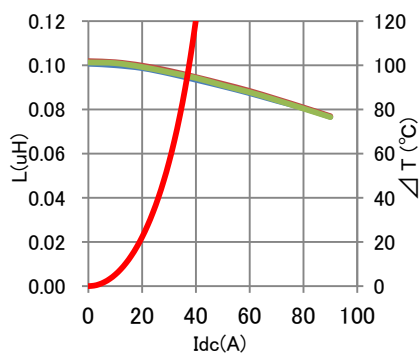
※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes $\Delta T=40^{\circ}\text{C}$. ($T_a=20^{\circ}\text{C}$)

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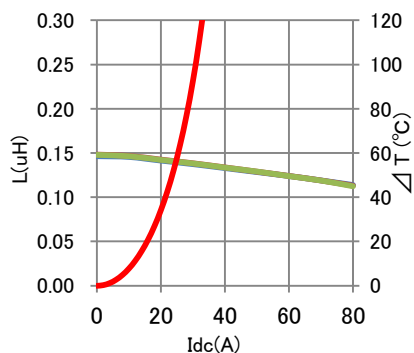


Saturation Current & Temperature Rise Graph — L (20°C) — L (110°C) — L (150°C) — ΔT

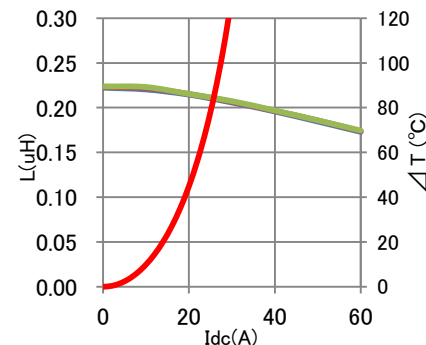
CDRH127BNP-4R7NC



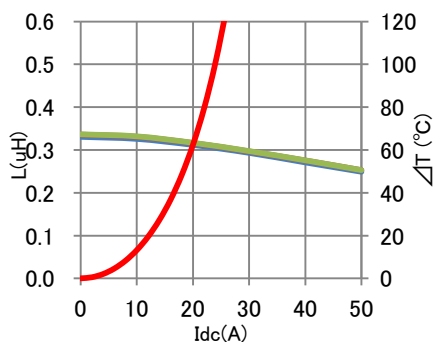
CDRH127BNP-6R3NC



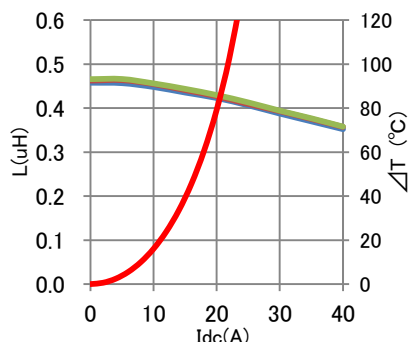
CDRH127BNP-100NC



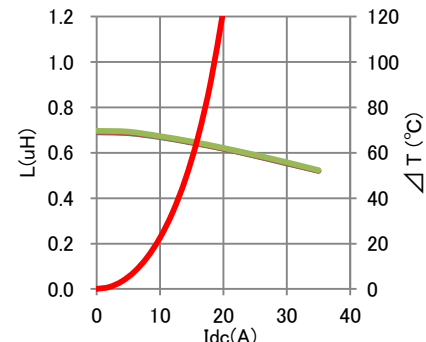
CDRH127BNP-150PC



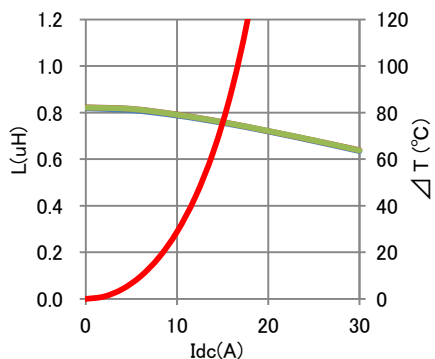
CDRH127BNP-220PC



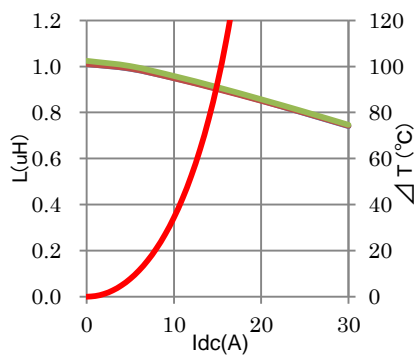
CDRH127BNP-330PC



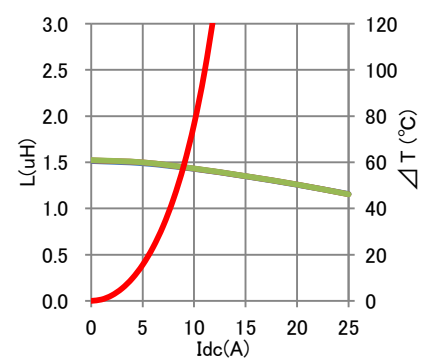
CDRH127BNP-470PC



CDRH127BNP-680PC



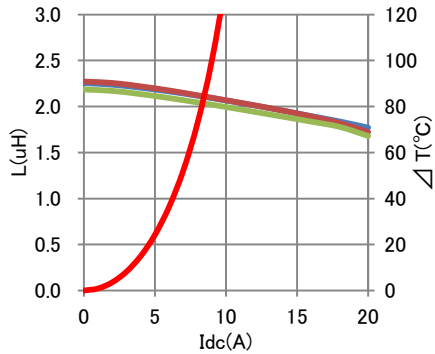
CDRH127BNP-101PC



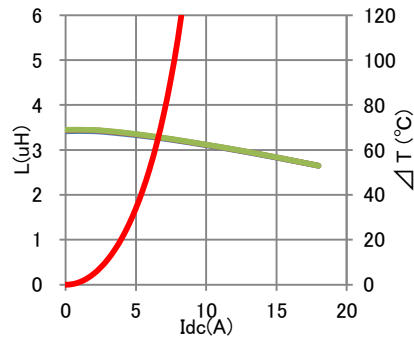
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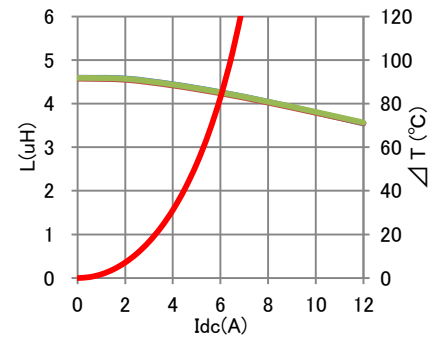
CDRH127BNP-151PC



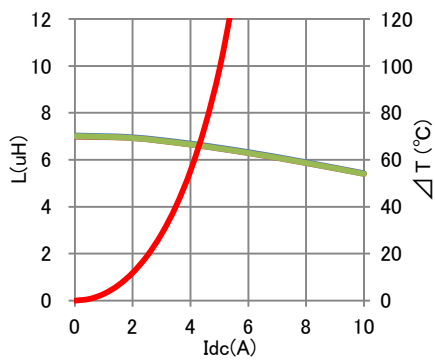
CDRH127BNP-221PC



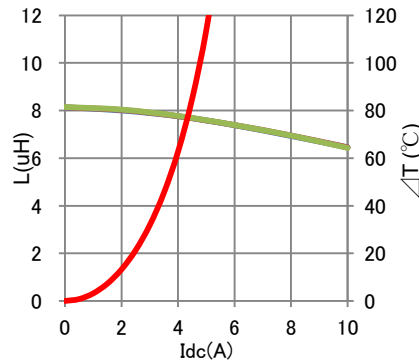
CDRH127BNP-331PC



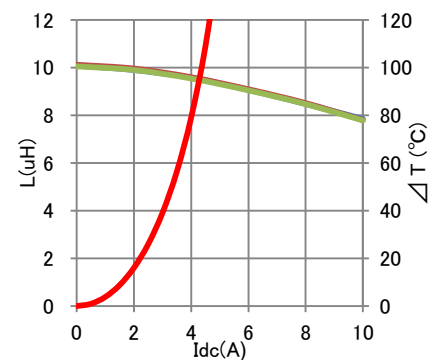
CDRH127BNP-471PC



CDRH127BNP-8R2MC



CDRH127BNP-100MC



Solder Reflow Condition

