CDRCH12D78BT150NP-680MC Datashee

DiGi Electronics Part Number	CDRCH12D78BT150NP-680MC-DG
Manufacturer	Sumida America Components Inc.
Manufacturer Product Number	CDRCH12D78BT150NP-680MC
Description	INDUCTOR
Detailed Description	68 µH Shielded Drum Core, Wirewound Inductor 1.2 A 312mOhm Max Nonstandard

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
CDRCH12D78BT150NP-680MC	Sumida America Components Inc.
Series:	Product Status:
CDRCH12D78BT150	Active
Type:	Material - Core:
Drum Core, Wirewound	Ferrite
Inductance:	Tolerance:
68 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
1.2 A	3.6A
Shielding:	DC Resistance (DCR):
Shielded	312mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
AEC-Q200	-40°C ~ 150°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.480" L x 0.480" W (12.20mm x 12.20mm)
Height - Seated (Max):	
0.323" (8.20mm)	

Environmental & Export classification

Moisture Sensitivity Level (MSL):
1 (Unlimited)

SMD Power Inductor

CDRCH12D78BT150

Discription

- Ferrite drum core construction
- Magnetically shielded
- Qualification to AEC-Q200
- L×W×H:12.5×12.5×8.2 mm Max.
- Product weight: 4.1 g (Ref.)
- Moisture Sensitivity Level: 1

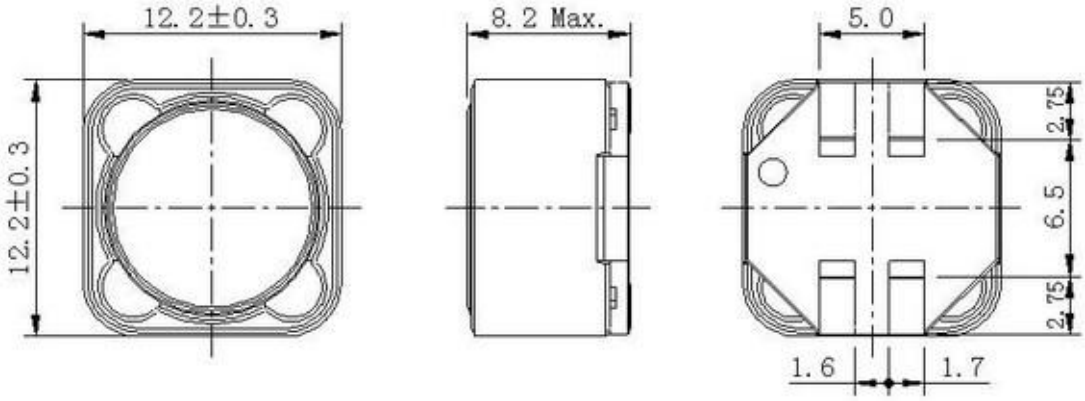
Environmental Data

- Operating temperature range: -40°C~+150°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+150°C

Applications

- Ideally used in LED modules, DC/DC converters and 1:1 Transformer, etc.

Dimension - [mm]



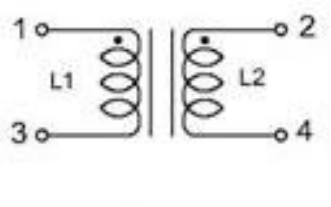
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

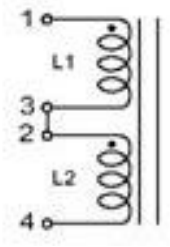
SMD Power Inductor

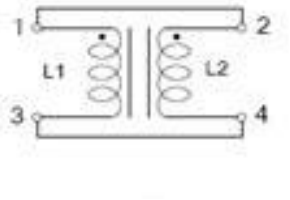
CDRCH12D78BT150

Reference Land pattern – [mm]

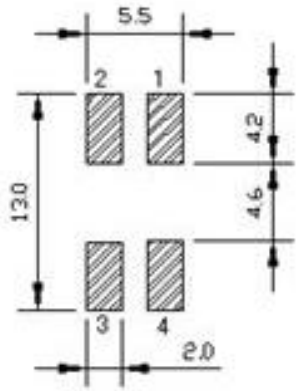
(1) Single winding (2) Leads connected in series (3) Leads connected in parallel

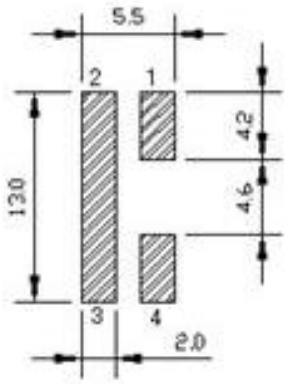


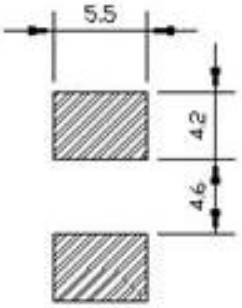




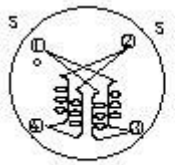
(1) (2) (3)



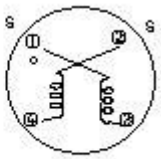




Connection



(4.7μH~22μH)



(33μH~470μH)

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

SMD Power Inductor

CDRCH12D78BT150

Electrical Characteristics

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

Part No.	Inductance (μH) ※1	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
			(at 20°C)	(at 150°C) Ref.	
CDRCH12D78BT150NP-4R7NC	4.7±30%	44.0 (35.0)	12.80 (15.00)	12.10	3.50 (4.10)
CDRCH12D78BT150NP-6R8NC	6.8±30%	55.0 (44.0)	11.00 (13.20)	10.00	3.20 (3.70)
CDRCH12D78BT150NP-100MC	10±20%	70.0 (56.0)	9.60 (11.20)	8.40	2.90 (3.40)
CDRCH12D78BT150NP-150MC	15±20%	79.0 (63.0)	8.00 (9.40)	7.30	2.70 (3.10)
CDRCH12D78BT150NP-220MC	22±20%	113 (90.0)	6.40 (7.60)	6.00	2.20 (2.60)
CDRCH12D78BT150NP-330MC	33±20%	180 (144.0)	5.40 (6.40)	4.70	1.70 (2.10)
CDRCH12D78BT150NP-470MC	47±20%	216 (173)	4.40 (5.20)	4.10	1.40 (1.70)
CDRCH12D78BT150NP-680MC	68±20%	312 (250)	3.60 (4.40)	3.20	1.20 (1.50)
CDRCH12D78BT150NP-101MC	100±20%	433 (347)	3.00 (3.60)	2.60	1.00 (1.25)
CDRCH12D78BT150NP-151MC	150±20%	718 (575)	2.50 (3.00)	2.10	0.70 (0.90)
CDRCH12D78BT150NP-221MC	220±20%	1070 (853)	2.00 (2.40)	1.80	0.65 (0.78)
CDRCH12D78BT150NP-331MC	330±20%	1550 (1240)	1.60 (2.00)	1.50	0.56 (0.63)
CDRCH12D78BT150NP-471MC	470±20%	2310 (1850)	1.40 (1.60)	1.10	0.42 (0.50)

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

SMD Power Inductor

CDRCH12D78BT150

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

Part No.	Inductance (μH) ※1	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
			(at 20°C)	(at 150°C) Ref.	
CDRCH12D78BT150NP-4R7NC	18.8±30%	88.0 (70.0)	6.40 (7.50)	6.10	2.40 (2.90)
CDRCH12D78BT150NP-6R8NC	27.2±30%	110 (88.0)	5.50 (6.60)	5.00	2.10 (2.40)
CDRCH12D78BT150NP-100MC	40±20%	140 (112)	4.80 (5.60)	4.30	2.00 (2.30)
CDRCH12D78BT150NP-150MC	60±20%	158 (126)	4.00 (4.70)	3.70	1.80 (2.10)
CDRCH12D78BT150NP-220MC	88±20%	226 (180)	3.20 (3.80)	3.10	1.50 (1.70)
CDRCH12D78BT150NP-330MC	132±20%	360 (288)	2.70 (3.20)	2.60	1.20 (1.40)
CDRCH12D78BT150NP-470MC	188±20%	432 (346)	2.20 (2.60)	2.10	1.00 (1.20)
CDRCH12D78BT150NP-680MC	272±20%	624 (500)	1.80 (2.20)	1.60	0.85 (0.96)
CDRCH12D78BT150NP-101MC	400±20%	866 (694)	1.50 (1.80)	1.40	0.67 (0.77)
CDRCH12D78BT150NP-151MC	600±20%	1440 (1150)	1.20 (1.50)	1.10	0.55 (0.66)
CDRCH12D78BT150NP-221MC	880±20%	2140 (1700)	1.00 (1.20)	0,90	0.45 (0.54)
CDRCH12D78BT150NP-331MC	1320±20%	3100 (2480)	0.80 (1.00)	0.70	0.40 (0.45)
CDRCH12D78BT150NP-471MC	1880±20%	4630 (3700)	0.70 (0.80)	0.50	0.30 (0.35)

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

SMD Power Inductor

CDRCH12D78BT150

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

Part No.	Inductance (μH) ※1	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) Max. (Typ.) ※2		Temperature Rise Current (A) Max. (Typ.) ※3
			(at 20°C)	(at 150°C) Ref.	
CDRCH12D78BT150NP-4R7NC	4.7±30%	22.0 (18.0)	12.80 (15.00)	12.10	5.00 (5.80)
CDRCH12D78BT150NP-6R8NC	6.8±30%	28.0 (22.0)	11.00 (13.20)	10.00	4.50 (5.20)
CDRCH12D78BT150NP-100MC	10±20%	35.0 (28.0)	9.60 (11.20)	8.40	4.00 (4.50)
CDRCH12D78BT150NP-150MC	15±20%	40.0 (32.0)	8.00 (9.40)	7.30	3.80 (4.30)
CDRCH12D78BT150NP-220MC	22±20%	57.0 (45.0)	6.40 (7.60)	6.00	3.20 (3.70)
CDRCH12D78BT150NP-330MC	33±20%	90.0 (72.0)	5.40 (6.40)	4.70	2.50 (2.90)
CDRCH12D78BT150NP-470MC	47±20%	108 (87.0)	4.40 (5.20)	4.10	2.15 (2.50)
CDRCH12D78BT150NP-680MC	68±20%	156 (125)	3.60 (4.40)	3.20	1.85 (2.15)
CDRCH12D78BT150NP-101MC	100±20%	217 (174)	3.00 (3.60)	2.60	1.52 (1.78)
CDRCH12D78BT150NP-151MC	150±20%	359 (288)	2.50 (3.00)	2.10	1.16 (1.35)
CDRCH12D78BT150NP-221MC	220±20%	535 (426)	2.00 (2.40)	1.80	0.95 (1.14)
CDRCH12D78BT150NP-331MC	330±20%	775 (620)	1.60 (2.00)	1.50	0.80 (0.91)
CDRCH12D78BT150NP-471MC	470±20%	1160 (925)	1.40 (1.60)	1.10	0.53 (0.63)

※1 Measuring frequency at 100kHz, 0.1V.

※2 Saturation current: The value of D.C. current when the inductance becomes 30% lower than its initial value.

※3 Temperature rise current: The value of D.C. current when the temperature of coil becomes △T=40℃ (Ta＝20℃).

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

SMD Power Inductor

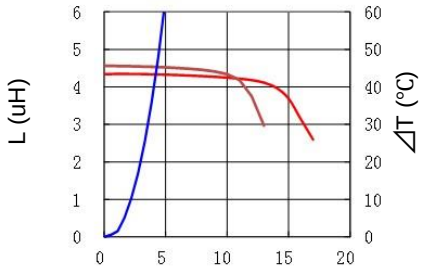
CDRCH12D78BT150

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

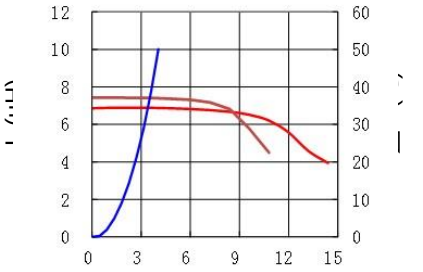
Saturation Current & Temperature Rise Graph

L(20℃) L(150℃) △T

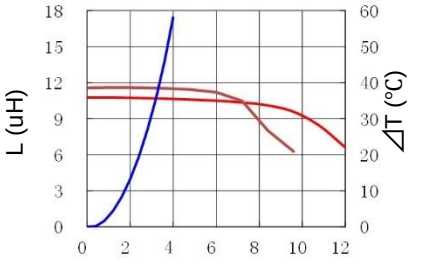
CDRCH12D78BT150NP-4R7NC



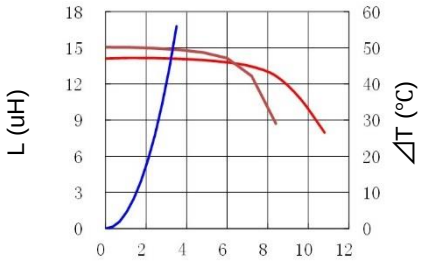
CDRCH12D78BT150NP-6R8NC



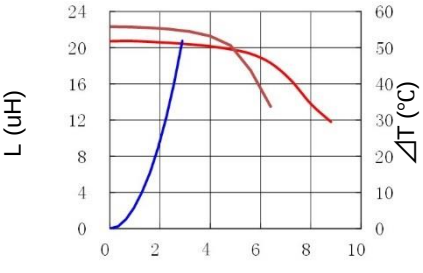
CDRCH12D78BT150NP-100MC



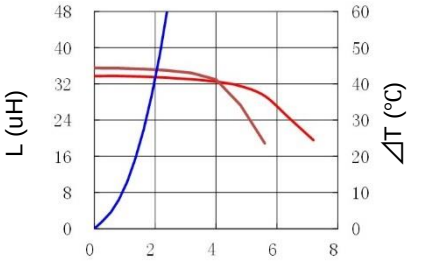
CDRCH12D78BT150NP-150MC



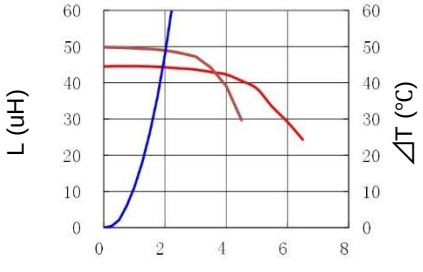
CDRCH12D78BT150NP-220MC



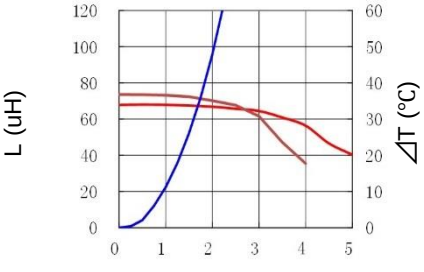
CDRCH12D78BT150NP-330MC



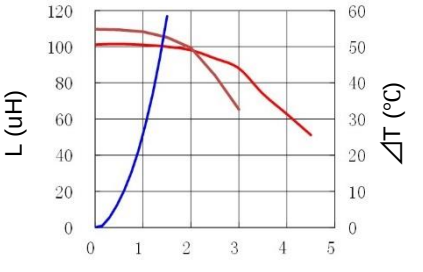
CDRCH12D78BT150NP-470MC



CDRCH12D78BT150NP-680MC



CDRCH12D78BT150NP-101MC



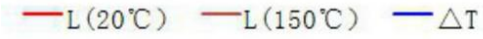
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

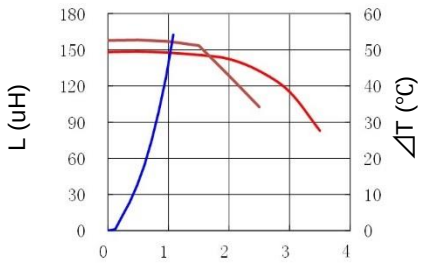
CDRCH12D78BT150

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

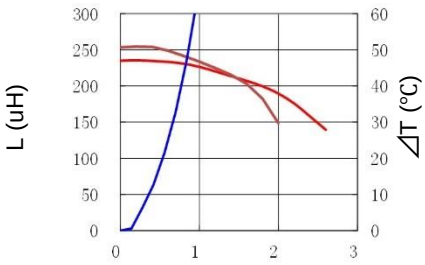
Saturation Current & Temperature Rise Graph



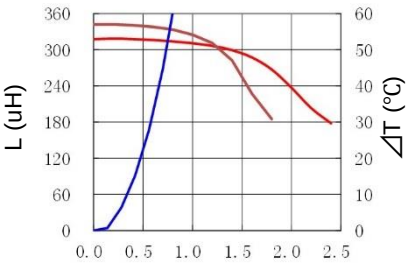
CDRCH12D78BT150NP-151MC



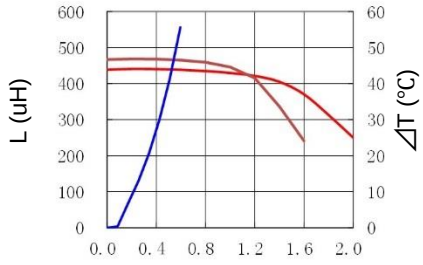
CDRCH12D78BT150NP-221MC



CDRCH12D78BT150NP-331MC



CDRCH12D78BT150NP-471MC



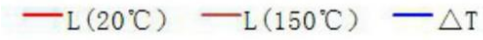
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

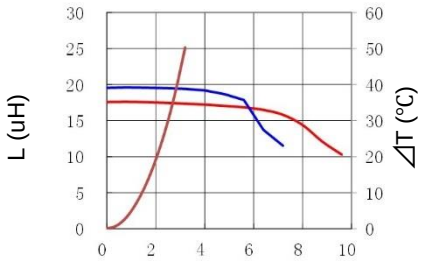
CDRCH12D78BT150

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

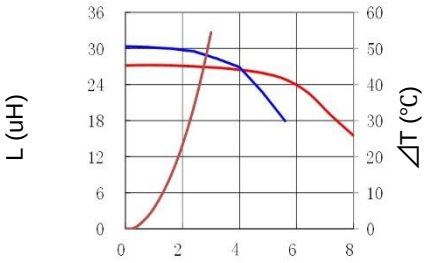
Saturation Current & Temperature Rise Graph



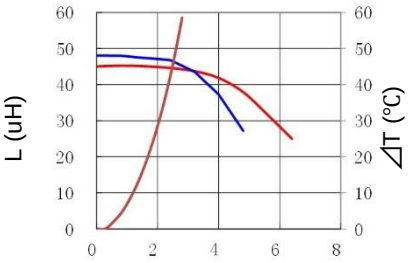
CDRCH12D78BT150NP-4R7NC



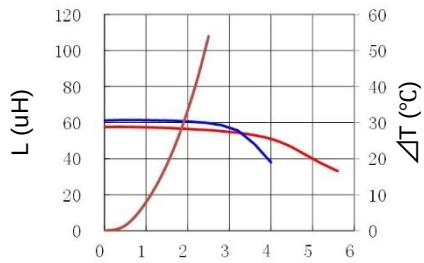
CDRCH12D78BT150NP-6R8NC



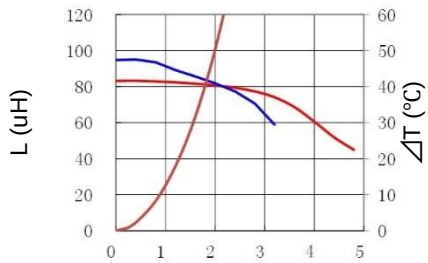
CDRCH12D78BT150NP-100MC



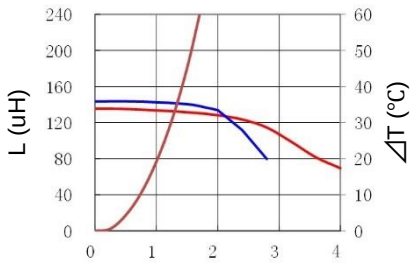
CDRCH12D78BT150NP-150MC



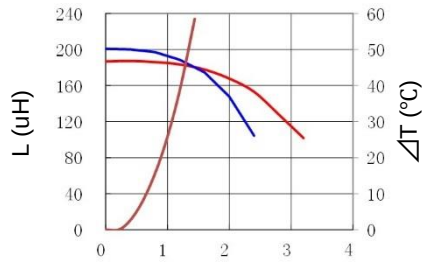
CDRCH12D78BT150NP-220MC



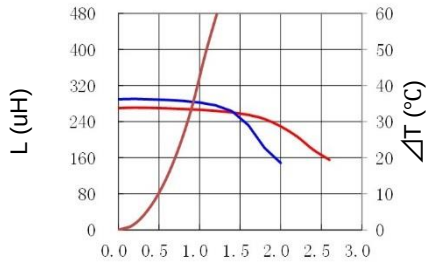
CDRCH12D78BT150NP-330MC



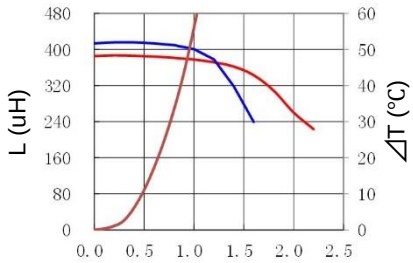
CDRCH12D78BT150NP-470MC



CDRCH12D78BT150NP-680MC



CDRCH12D78BT150NP-101MC



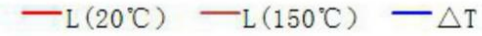
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

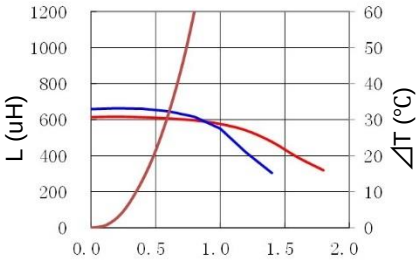
CDRCH12D78BT150

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

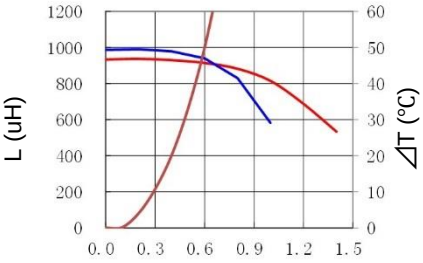
Saturation Current & Temperature Rise Graph



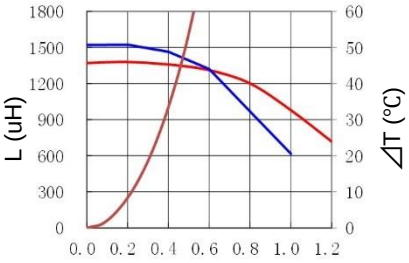
CDRCH12D78BT150NP-151MC



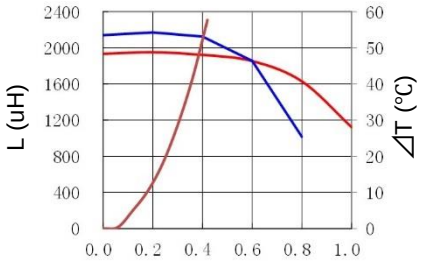
CDRCH12D78BT150NP-221MC



CDRCH12D78BT150NP-331MC



CDRCH12D78BT150NP-471MC



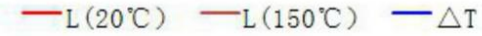
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

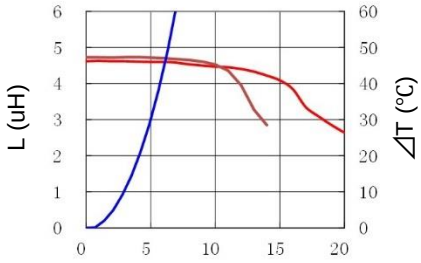
CDRCH12D78BT150

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

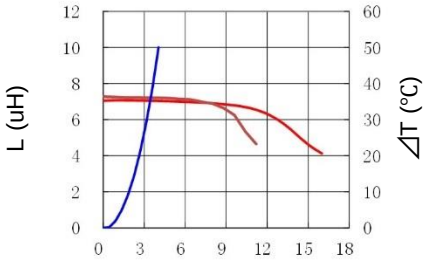
Saturation Current & Temperature Rise Graph



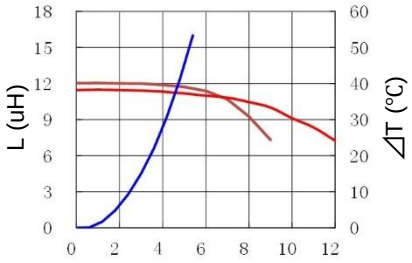
CDRCH12D78BT150NP-4R7NC



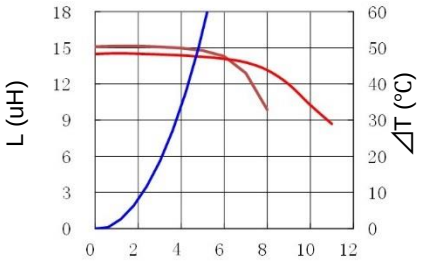
CDRCH12D78BT150NP-6R8NC



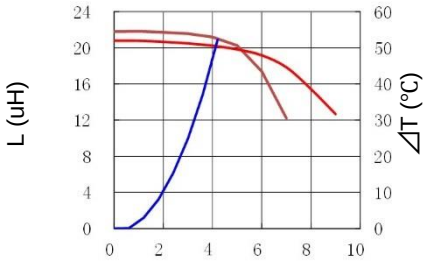
CDRCH12D78BT150NP-100MC



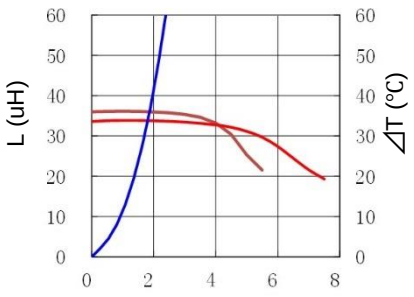
CDRCH12D78BT150NP-150MC



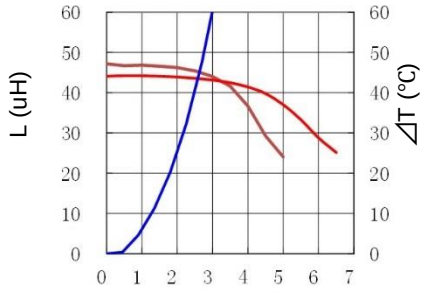
CDRCH12D78BT150NP-220MC



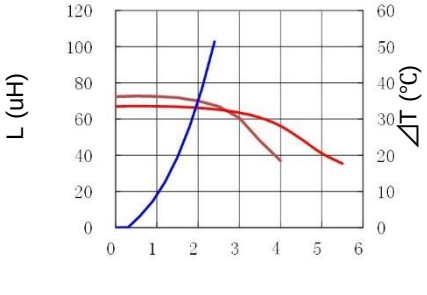
CDRCH12D78BT150NP-330MC



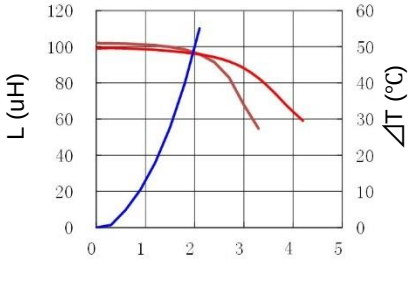
CDRCH12D78BT150NP-470MC



CDRCH12D78BT150NP-680MC



CDRCH12D78BT150NP-101MC



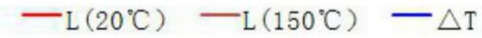
Note: This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

SMD Power Inductor

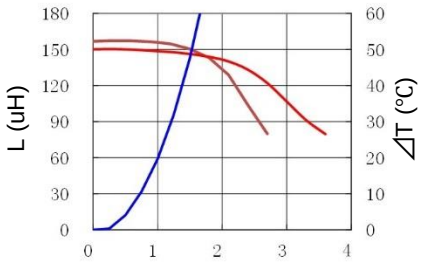
CDRCH12D78BT150

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

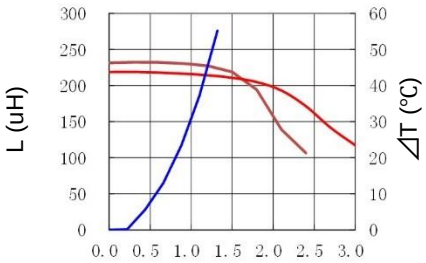
Saturation Current & Temperature Rise Graph



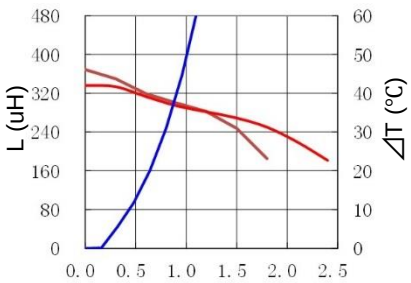
CDRCH12D78BT150NP-151MC



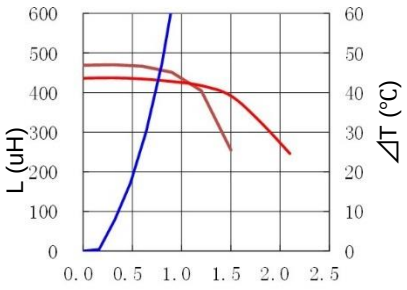
CDRCH12D78BT150NP-221MC



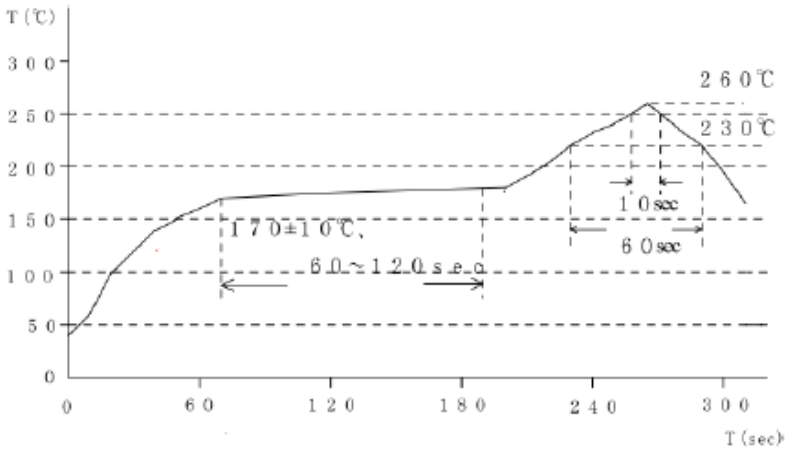
CDRCH12D78BT150NP-331MC



CDRCH12D78BT150NP-471MC



Solder Reflow Condition

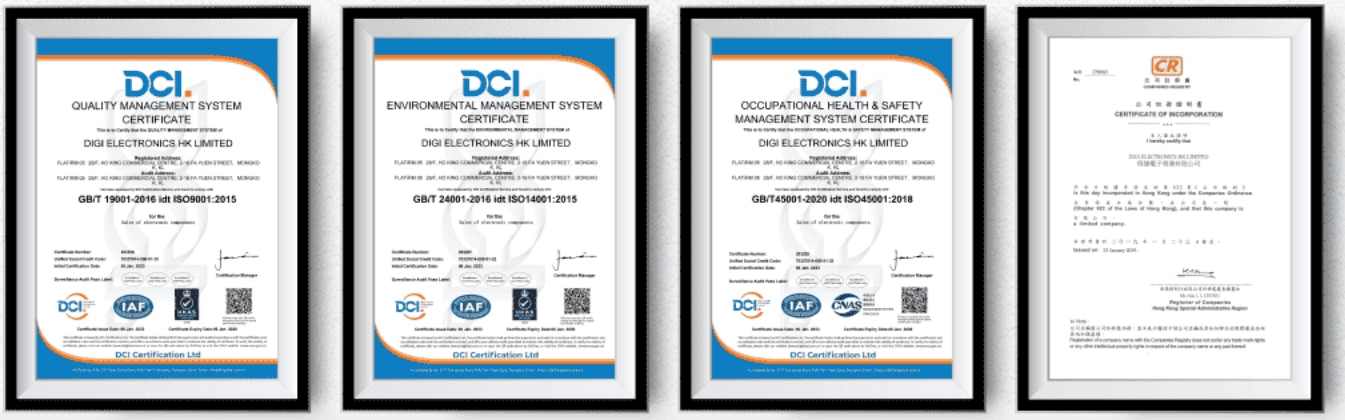


For sales office information, please click here to visit our website.

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

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.