

# CDRH6D23HPNP-1R8NC Datasheet



DiGi Electronics Part Number	CDRH6D23HPNP-1R8NC-DG
Manufacturer	<a href="#">Sumida America Components Inc.</a>
Manufacturer Product Number	CDRH6D23HPNP-1R8NC
Description	INDUCTOR
Detailed Description	1.2 $\mu$ H Shielded Drum Core, Wirewound Inductor 4.7 A 20mOhm Max Nonstandard

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## Purchase and inquiry

Manufacturer Product Number:

CDRH6D23HPNP-1R8NC

Series:

CDRH6D23HP

Type:

Drum Core, Wirewound

Inductance:

1.2  $\mu$ H

Current Rating (Amps):

4.7 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.098" (2.50mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 30%

Current - Saturation (Isat):

5A

DC Resistance (DCR):

20mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 105°C

Features:

-

Package / Case:

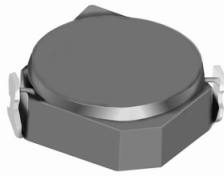
Nonstandard

Size / Dimension:

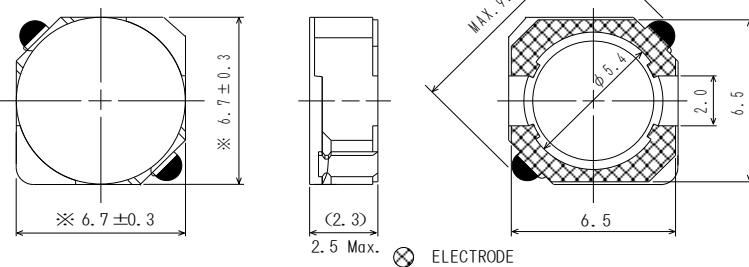
0.264" L x 0.264" W (6.70mm x 6.70mm)

# SMD Power Inductor

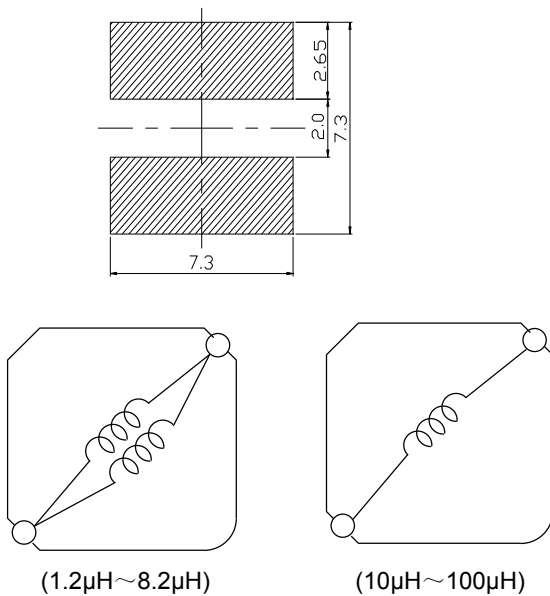
## CDRH6D23/HP



### Dimension - [mm]



### Land pattern and Schematics - [mm]



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 7.0 × 7.0 × 2.5 mm Max.
- Product weight: 0.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

### Environmental Data

- Operating temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$  (including coil's self temperature rise)
- Storage temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Solder reflow temperature:  $260^{\circ}\text{C}$  peak.

### Packaging

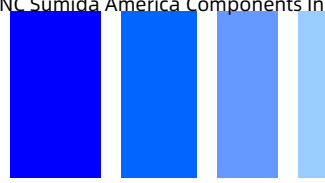
- Carrier tape and reel packaging
- 12.9" diameter reel
- 2000pcs per reel

### Applications

- Ideally used in MP3, PDA, HDD, DSC/DVC, Notebook PC etc as DC-DC converter inductors.

# SMD Power Inductor

## CDRH6D23/HP



### Electrical Characteristics

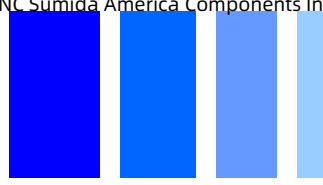
Part Name	Stamp	Inductance ( $\mu$ H) [within] ※1	D.C.R. (m $\Omega$ ) Max. (Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise Current (A) ※3
				at 20°C	at 105°C	
CDRH6D23HPNP-1R2NC	1R2	1.2 $\pm$ 30%	15.4(12.3)	6.20	5.20	5.30
CDRH6D23HPNP-1R8NC	1R8	1.8 $\pm$ 30%	20.0(16.0)	5.00	4.30	4.70
CDRH6D23HPNP-2R2NC	2R2	2.2 $\pm$ 30%	23.8(19.2)	4.40	3.80	4.10
CDRH6D23HPNP-3R3NC	3R3	3.3 $\pm$ 30%	32.5(26.2)	4.05	3.35	3.30
CDRH6D23HPNP-4R7NC	4R7	4.7 $\pm$ 30%	42.5(34.4)	3.40	2.85	2.80
CDRH6D23HPNP-5R6NC	5R6	5.6 $\pm$ 30%	58.8(47.5)	3.20	2.65	2.30
CDRH6D23HPNP-6R8NC	6R8	6.8 $\pm$ 30%	68.8(55.0)	2.78	2.34	2.20
CDRH6D23HPNP-8R2NC	8R2	8.2 $\pm$ 30%	73.0(58.5)	2.65	2.24	2.10
CDRH6D23HPNP-100MC	100	10 $\pm$ 20%	102.5(82.0)	2.55	2.14	1.70
CDRH6D23HPNP-150MC	150	15 $\pm$ 20%	154.8(123.9)	2.10	1.80	1.40
CDRH6D23HPNP-220MC	220	22 $\pm$ 20%	217.5(173.8)	1.58	1.35	1.10
CDRH6D23HPNP-330MC	330	33 $\pm$ 20%	269.5(215.6)	1.37	1.16	1.00
CDRH6D23HPNP-470MC	470	47 $\pm$ 20%	395.0(316.0)	1.12	0.93	0.80
CDRH6D23HPNP-560MC	560	56 $\pm$ 20%	500.0(400.0)	0.97	0.83	0.75
CDRH6D23HPNP-680MC	680	68 $\pm$ 20%	574.5(459.8)	0.93	0.78	0.70
CDRH6D23HPNP-820MC	820	82 $\pm$ 20%	712.5(571.5)	0.82	0.70	0.60
CDRH6D23HPNP-101MC	101	100 $\pm$ 20%	875.8(700.7)	0.72	0.61	0.52

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

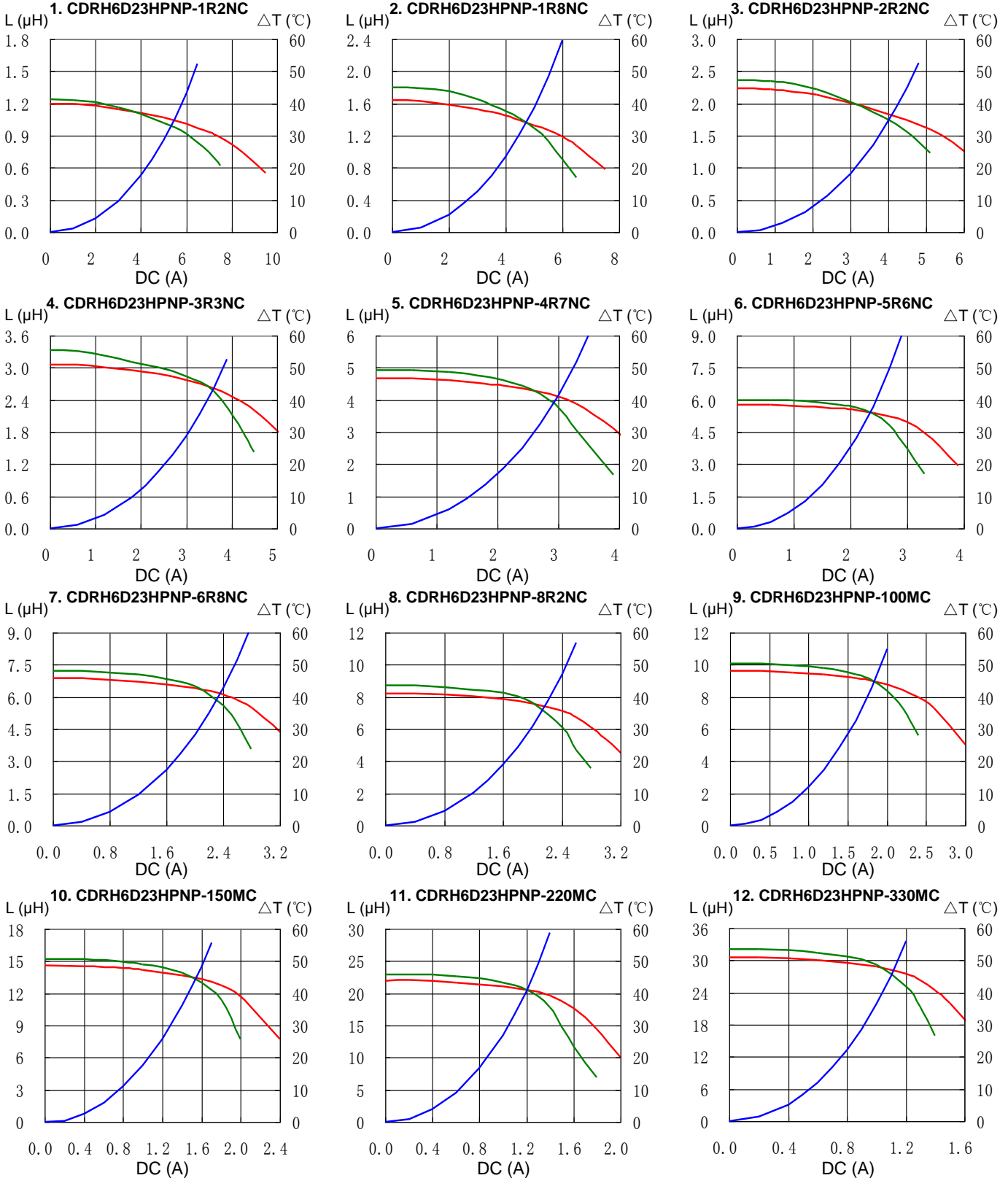
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDRH6D23/HP

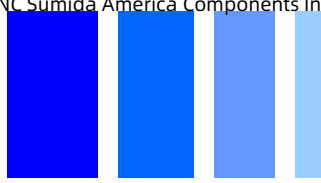


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

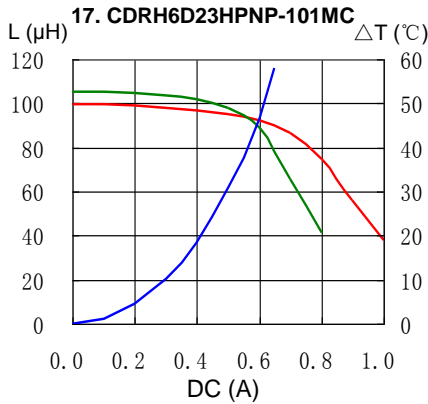
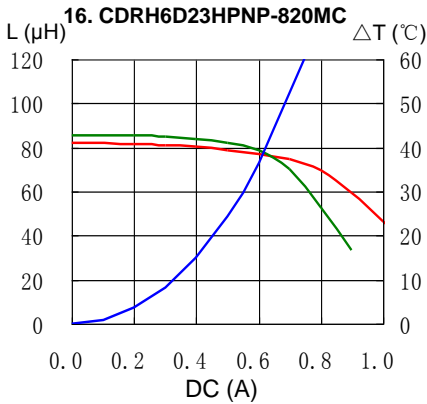
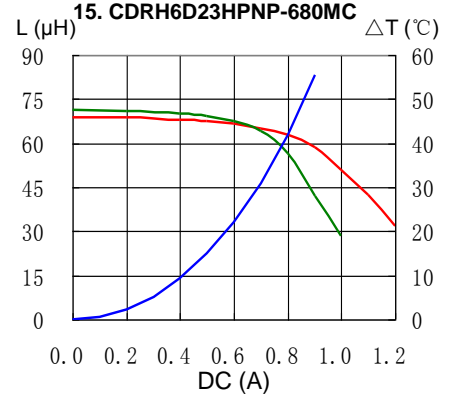
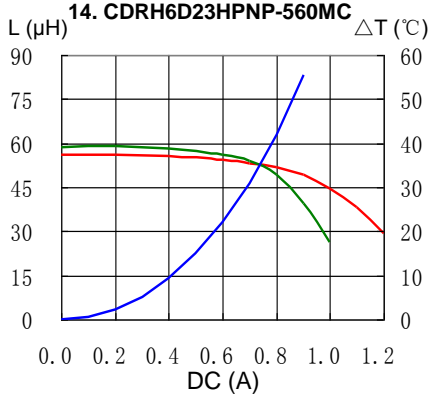
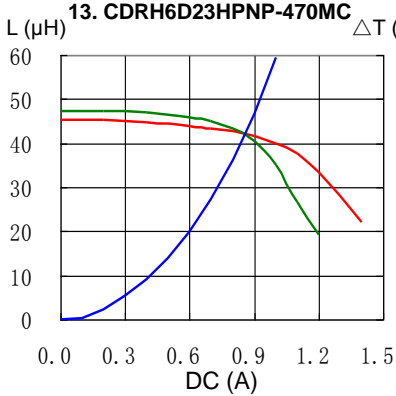


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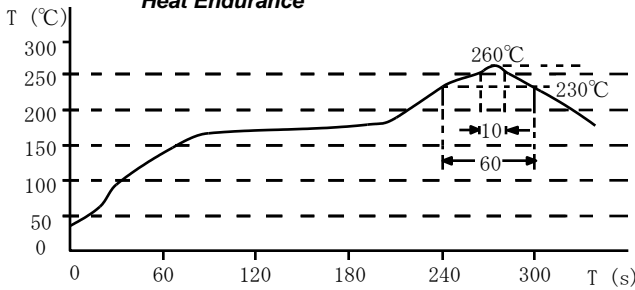
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT

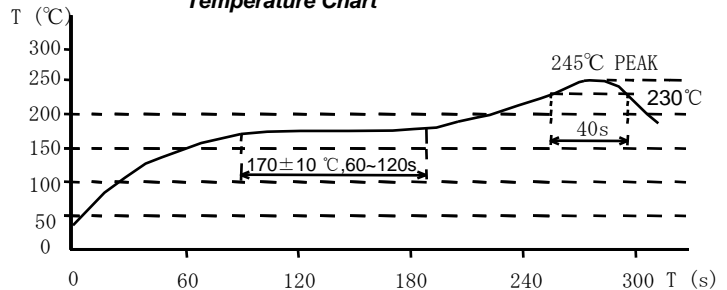


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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