

CDEP6D31MENP-R82MC Datasheet



DiGi Electronics Part Number	CDEP6D31MENP-R82MC-DG
Manufacturer	Sumida America Components Inc.
Manufacturer Product Number	CDEP6D31MENP-R82MC
Description	INDUCTOR
Detailed Description	820 nH Shielded Molded Inductor 7.8 A 9.2mOhm Max Nonstandard

<https://www.DiGi-Electronics.com>



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DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

CDEP6D31MENP-R82MC

Series:

CDEP6D31ME

Type:

Molded

Inductance:

820 nH

Current Rating (Amps):

7.8 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.126" (3.20mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Iron Powder

Tolerance:

±20%

Current - Saturation (Isat):

23A

DC Resistance (DCR):

9.2mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 125°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.295" L x 0.276" W (7.50mm x 7.00mm)

Environmental & Export classification

Moisture Sensitivity Level (MSL):

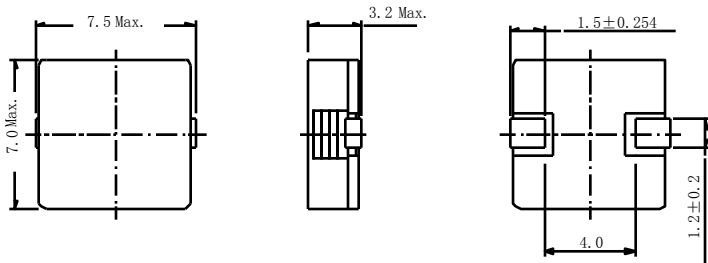
1 (Unlimited)

SMD Power Inductor

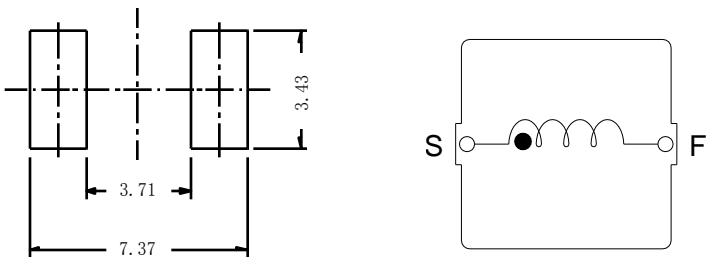
CDEP6D31ME



Dimension - [mm]



Land pattern and Schematics - [mm]



Description

- Metal alloy core construction.
- Magnetically shielded.
- L × W × H: 7.5 × 7.0 × 3.2 mm Max.
- Product weight: 0.72 g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

Environmental Data

- Operating temperature range: -40°C ~ +125°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +85°C
- Solder reflow temperature: 260 °C peak.

Packaging

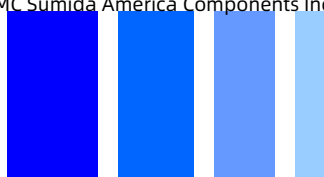
- Carrier tape and reel packaging.
- 13.0" diameter reel
- 1500pcs per reel

Applications

- Ideally used in server, Desktop ,Notebook ,communication devices and other high current application.

SMD Power Inductor

CDEP6D31ME



Electrical Characteristics

Part No.	Stamp	Inductance [Within] ※1	D.C.R. (mΩ) [Max.] (at 20°C)	DC Saturation current (A) ※2	Temperature rise current (A) ※3
CDEP6D31MENP-R47MC	R47	0.47μH±20%	5.9(4.7)	36.0(45.0)	9.2(11.5)
CDEP6D31MENP-R68MC	R68	0.68μH±20%	9.2(7.3)	30.4(38.0)	7.8(8.8)
CDEP6D31MENP-R82MC	R82	0.82μH±20%	9.2(7.3)	23.0(28.8)	7.8(8.8)
CDEP6D31MENP-1R0MC	1R0	1.0μH±20%	14.4(11.5)	21.1(26.4)	6.2(7.1)
CDEP6D31MENP-1R5MC	1R5	1.5μH±20%	15.7(12.5)	15.0(18.8)	6.0(6.6)
CDEP6D31MENP-2R2MC	2R2	2.2μH±20%	21.9(17.5)	12.4(15.5)	4.5(5.2)
CDEP6D31MENP-2R4MC	2R4	2.4μH±20%	21.9(17.5)	9.9(12.4)	4.5(5.2)
CDEP6D31MENP-2R7MC	2R7	2.7μH±20%	21.9(17.5)	8.6(10.8)	4.5(5.2)

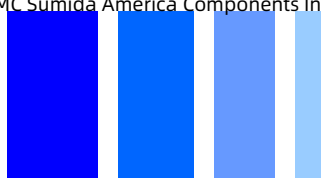
※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 80% of it's nominal value.

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

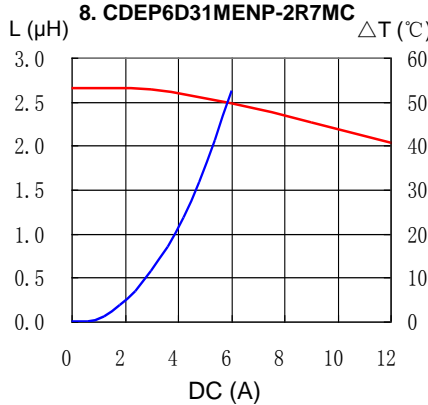
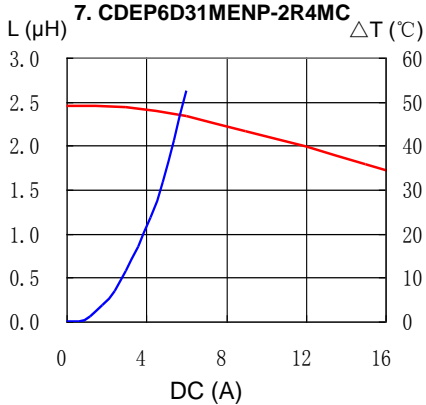
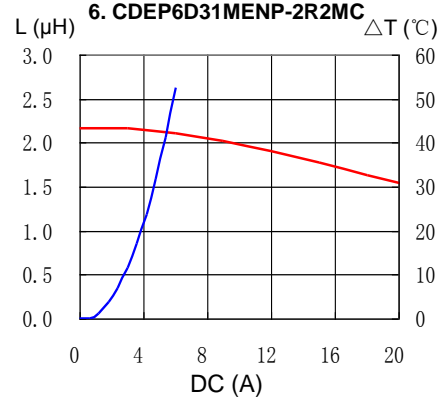
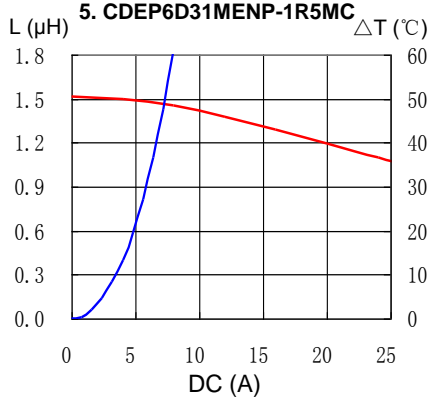
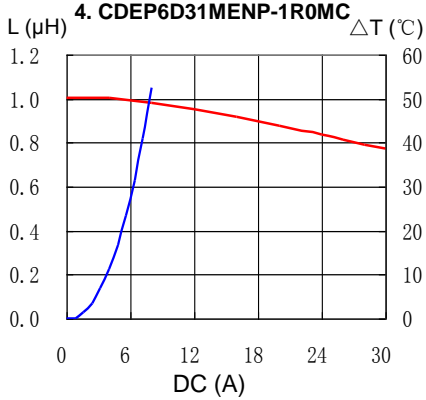
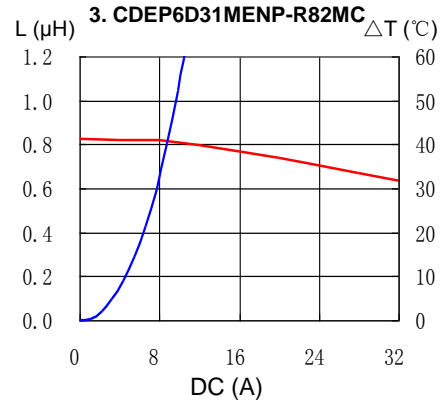
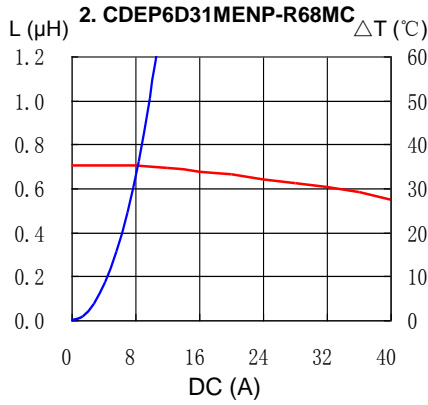
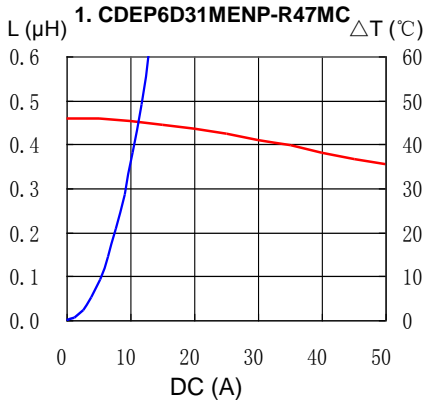
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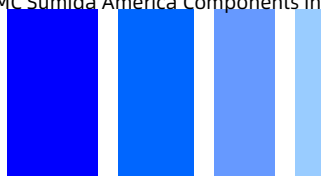
Saturation Current & Temperature Rise Graph

— L (25°C) — ΔT



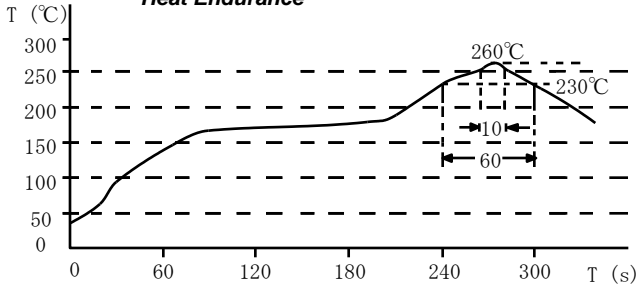
SMD Power Inductor

CDEP6D31ME

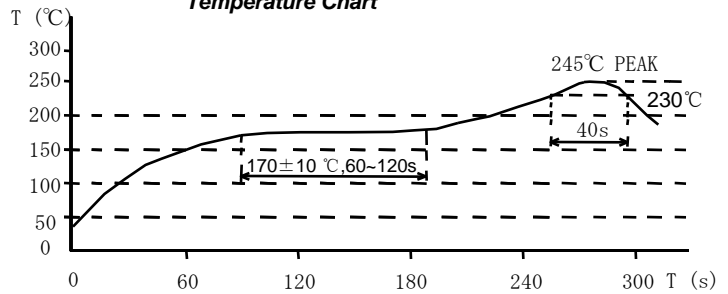


Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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