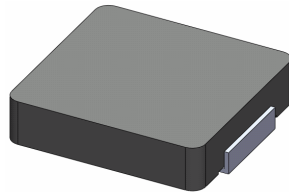


SMD Power Inductor 0412CDMCC/DS



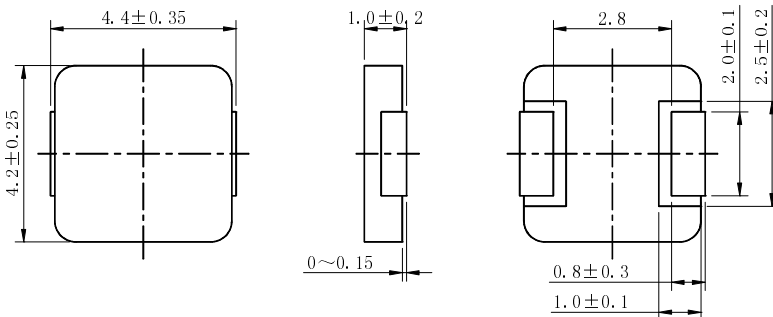
Halogen Free



Description

- Metal compound molding type construction.
- Magnetically shielded.
- Low audible core noise.
- Suitable for large current.
- L × W × H: 4.75 × 4.45 × 1.2 mm Max.
- Product weight: 0.16g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Dimension - [mm]



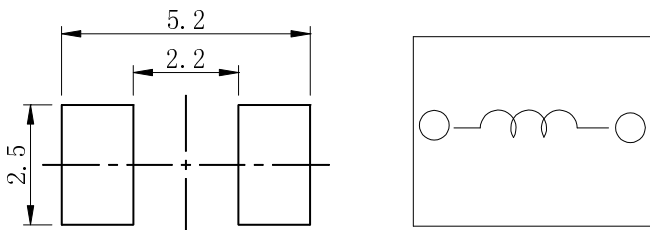
Environmental Data

- Operating temperature range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (including coil's self temperature rise)
- Storage temperature range: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Solder reflow temperature: 260°C peak.

Packaging

- Carrier tape and reel packaging.
- 3000pcs/Reel.

Land pattern and Schematics - [mm]



Applications

- Ideally used in notebook, ultrabook, tablet PC, LCD display, Server application.
- HDD, SSD modules application.
- High current, POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converters in distributed power systems.

SMD Power Inductor

0412CDMCC/DS



Electrical Characteristics

Part No.	Stamp	Inductance [Within] (μ H) ※1	D.C.R (m Ω) Max.(Typ.) at 25°C	Saturation Current (A) Max.(Typ.) (at 25°C) ※2	Temperature rise current (A) (Typ.) ※3
0412CDMCCDS-R33MC	R33	0.33 \pm 20%	19(17)	9.4(11.0)	6.5
0412CDMCCDS-R47MC	R47	0.47 \pm 20%	21(19)	8.2(9.7)	6.0
0412CDMCCDS-R68MC	R68	0.68 \pm 20%	36(32)	6.9(8.0)	4.7
0412CDMCCDS-1R0MC	1R0	1.0 \pm 20%	47(43)	6.0(7.1)	4.1
0412CDMCCDS-1R5MC	1R5	1.5 \pm 20%	75(68)	3.6(4.2)	2.9
0412CDMCCDS-2R2MC	2R2	2.2 \pm 20%	84(80)	3.4(4.0)	2.7
0412CDMCCDS-3R3MC	3R3	3.3 \pm 20%	140(125)	3.2(3.8)	2.1
0412CDMCCDS-4R7MC	4R7	4.7 \pm 20%	195(175)	2.6(3.1)	1.8

※1 Measuring frequency Inductance at 100kHz ,1.0V

※2 Saturation current: The value of DC current when the inductance is over 70% of its initial value. (at 25°C)

※3 Temperature rise current: The actual value of DC current when temperature of coil rise is

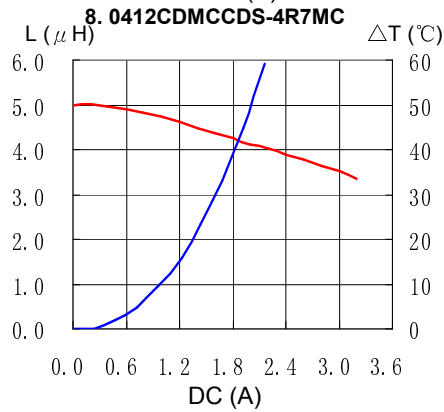
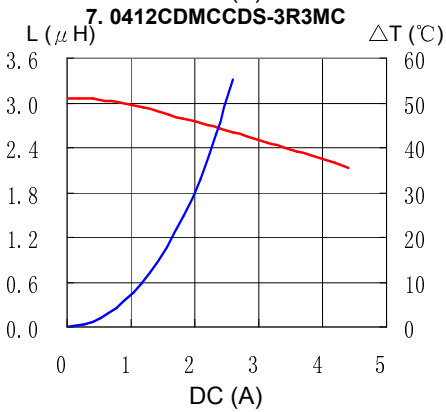
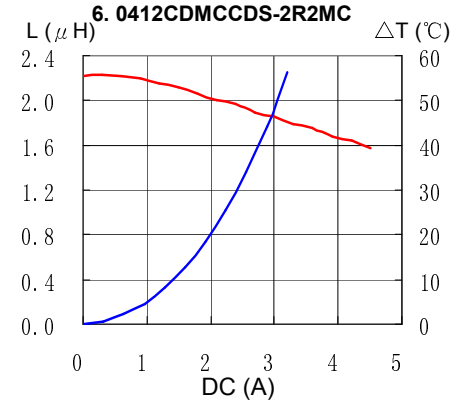
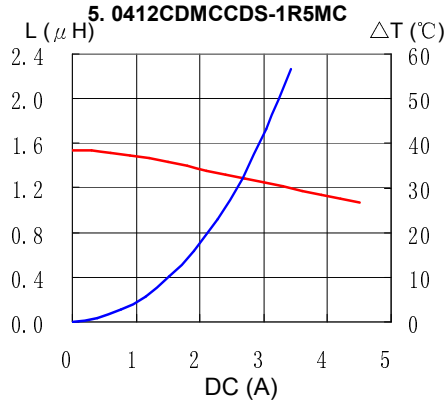
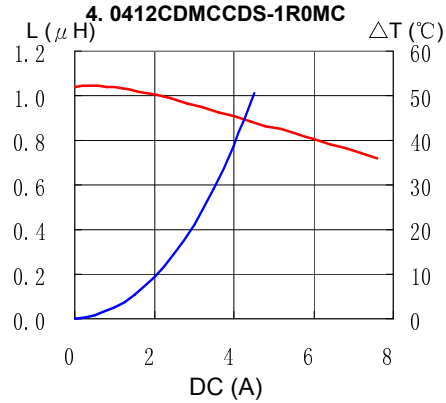
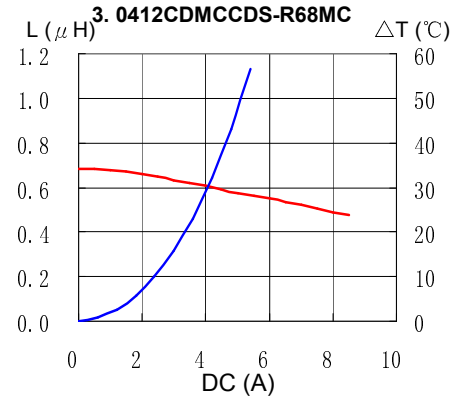
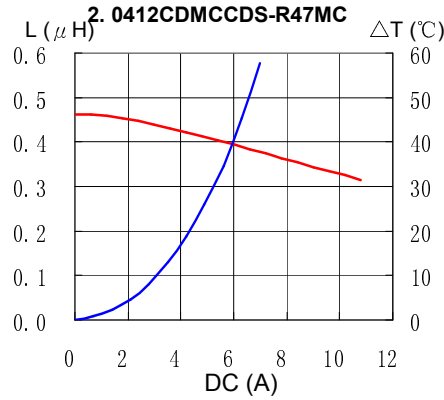
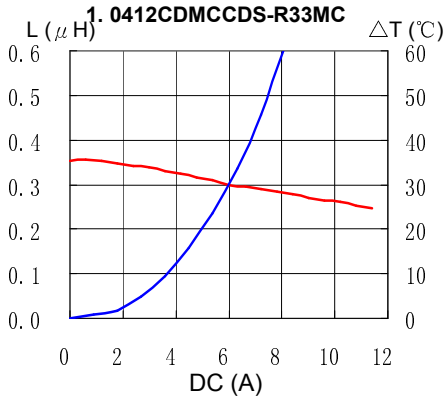
$\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$). Board conditions: FR4, Copper=70 μ m, four-layer PWB, t=1.6mm.

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Saturation Current & Temperature Rise Graph

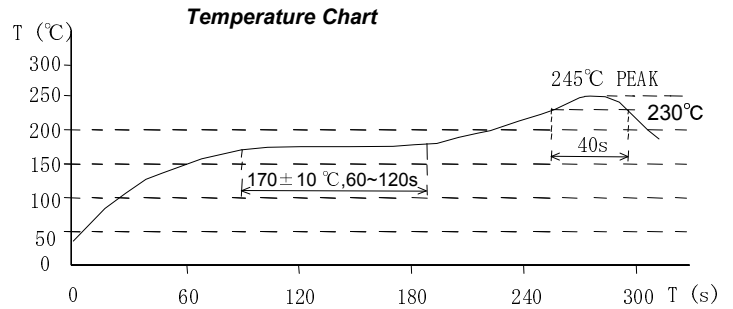
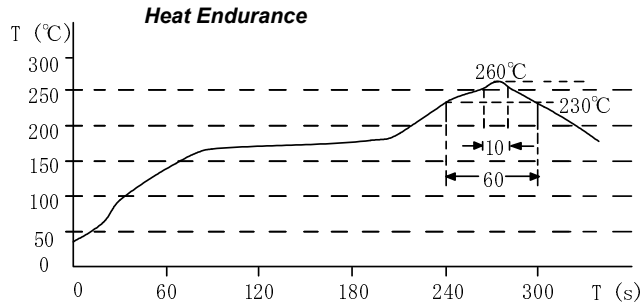
— L (20°C) — ΔT



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Solder Reflow Condition



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Tel.+852-2880-6781
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Shanghai

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Seoul

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shenzhen.sales@cn.sumida.com

Singapore

Tel.+65-6296-3388
FAX.+65-6841-4426
sales@sg.sumida.com

Neumarkt

Tel.+49-9181-4509-110
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infocomp@eu.sumida.com

Taipei

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