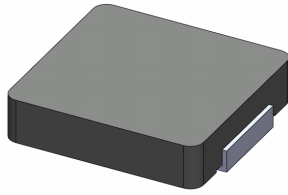
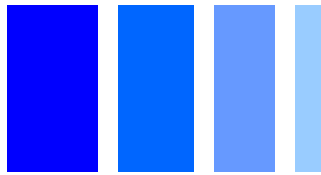


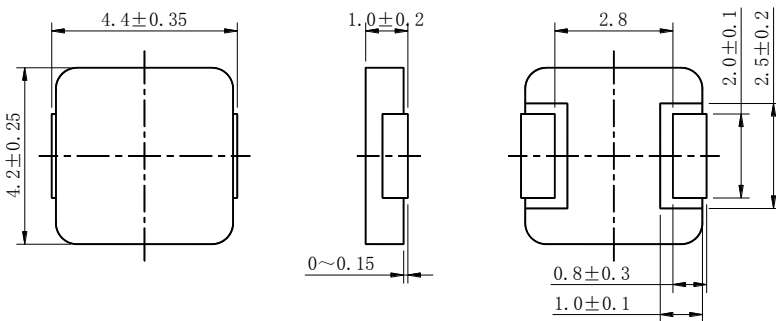
SMD Power Inductor 0412CDMCC/DS



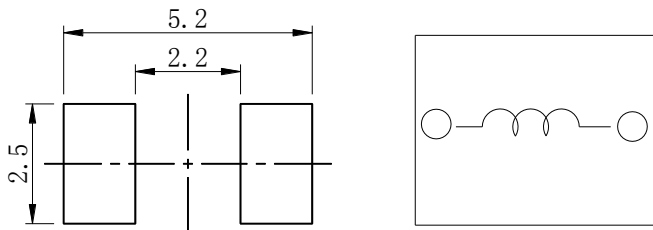
Description

- 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]



Land pattern and Schematics - [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.

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.



Electrical Characteristics

| Part No. | Stamp | Inductance(μ H) [Within] ※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-R10MC | R10 | 0.10 \pm 20% | 7.2(6.0) | 16.5(19.5) | 11.5 |
| 0412CDMCCDS-R12MC | R12 | 0.12 \pm 20% | 7.8(6.5) | 16.0(19.0) | 11.0 |
| 0412CDMCCDS-R15MC | R15 | 0.15 \pm 20% | 9.6(8.0) | 14.5(17.0) | 9.4 |
| 0412CDMCCDS-R22MC | R22 | 0.22 \pm 20% | 11.0(9.2) | 12.0(14.0) | 9.0 |
| 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 1V.

※2 Saturation current: This indicates the 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 $\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).

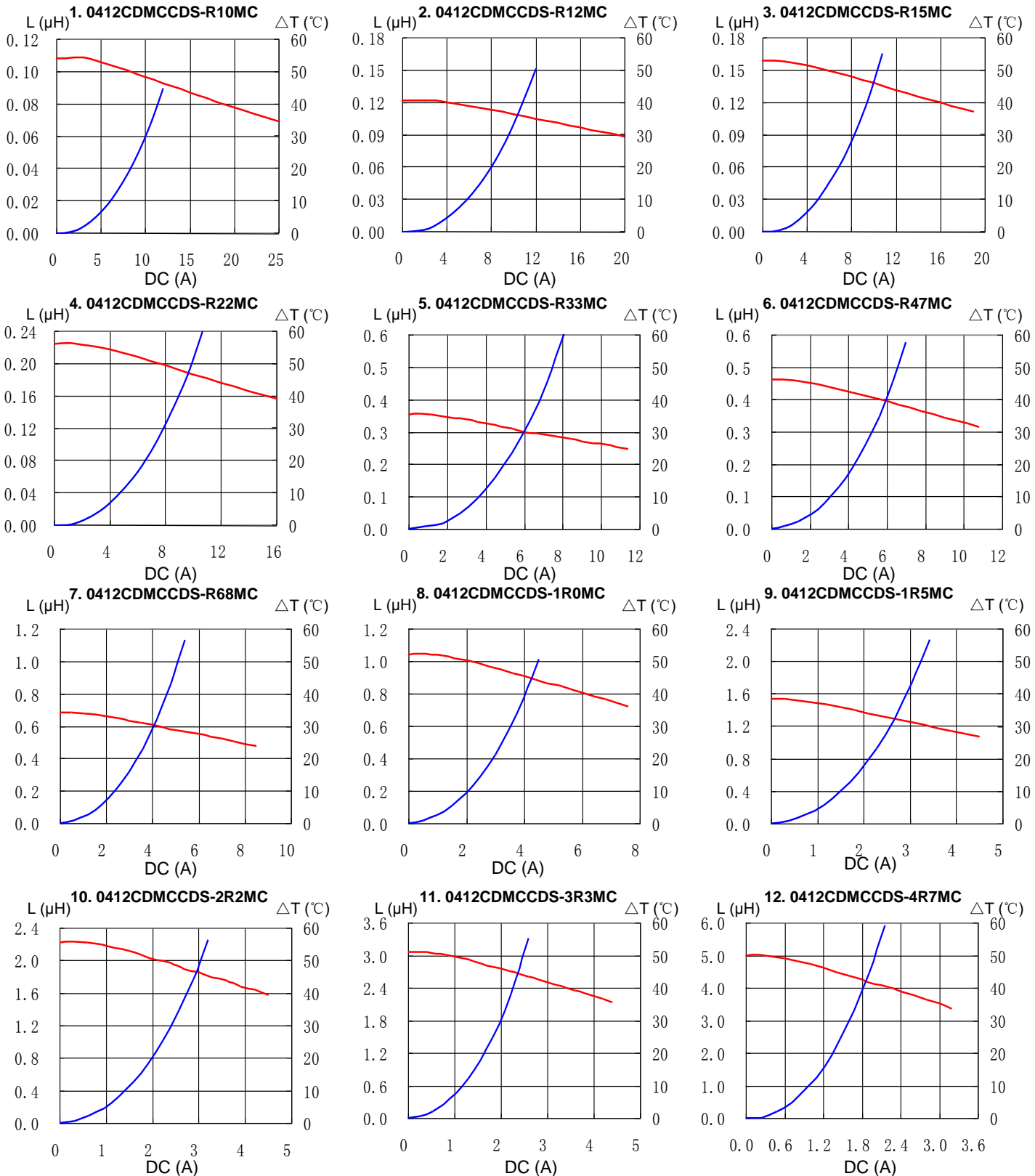
(Test board condition: FR4, Copper=70 μm , four-layer PWB t=1.6mm)

SMD Power Inductor 0412CDMCC/DS



Saturation Current & Temperature Rise Graph

— L (20°C) — ΔT

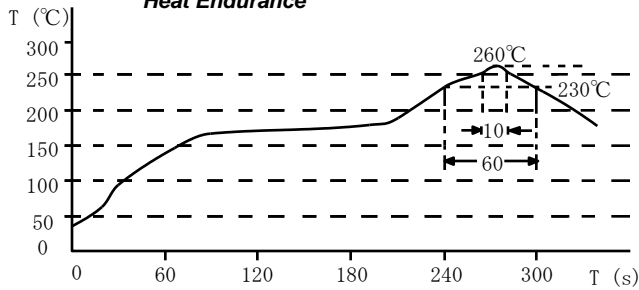


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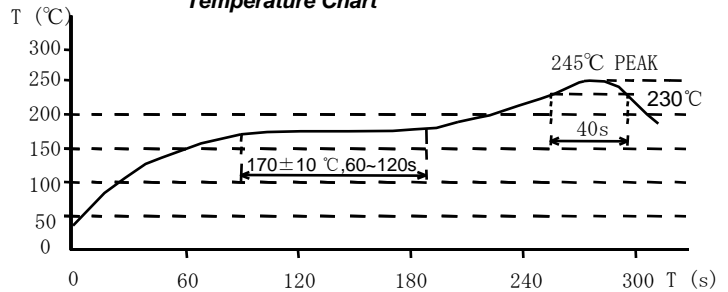


Solder Reflow Condition

Heat Endurance



Temperature Chart



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Hong Kong

Tel.+852-2880-6781
FAX.+852-2565-9600
sales@hk.sumida.com

Saitama(Japan)

Tel.+81-48-691-7300
FAX.+81-48-691-7340
sales@jp.sumida.com

Chicago

Tel.+1-847-545-6700
FAX. +1-847-545-6720
sales@us.sumida.com

Shanghai

Tel.+86-21-5836-3299
FAX.+86-21-5836-3266
shanghai.sales@cn.sumida.com

Seoul

Tel.+82-2-6237-0777
FAX.+82-2-6237-0778
sales@kr.sumida.com

Obernzell

Tel.+49-8591-937-0
FAX. +49-8591-937-103
contact@eu.sumida.com

Shenzhen

Tel.+86-755-8291-0228
FAX.+86-755-8291-0338
shenzhen.sales@cn.sumida.com

Singapore

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

Neumarkt

Tel.+49-9181-4509-110
FAX. +49-9181-4509-310
infocomp@eu.sumida.com

Taipei

Tel.+886-2-8751-2737
FAX.+886-2-8751-2738
sales@tw.sumida.com

San Jose

Tel.+1-408-321-9660
FAX.+1-408-321-9308
sales@us.sumida.com