



**THE DATASHEET OF
0518CDMCCDS-R56MC**



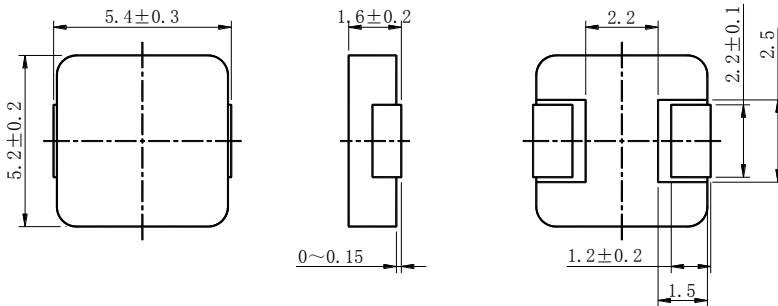
SMD Power Inductor 0518CDMCC/DS



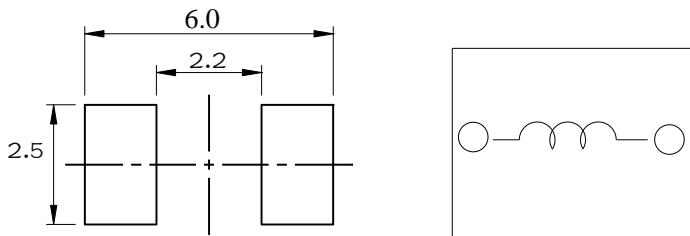
Halogen
Free



Dimension - [mm]



Land pattern and Schematics - [mm]



Description

- Metal compound molding type construction.
- Magnetically shielded.
- Low audible core noise.
- Suitable for large current.
- L × W × H: 5.7 × 5.4 × 1.8 mm Max.
- Product weight: 0.26g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

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.
- 2000pcs/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

No.	品名	表示	インダクタンス (μ H) [以内] ※1	D. C. R (m Ω) (at 25°C) Max. (Typ.)	直流重畳電流 (A)※2 Max. (Typ.) (at 25°C)	温度上昇電流 (A)※3 Typ.
01	0518CDMCCDS-R10MC	R10	0.10 \pm 20%	3.1(2.6)	25.0(29.5)	20.0
02	0518CDMCCDS-R12MC	R12	0.12 \pm 20%	2.6(2.2)	24.5(29.0)	21.0
03	0518CDMCCDS-R15MC	R15	0.15 \pm 20%	3.6(3.0)	24.0(28.5)	19.0
04	0518CDMCCDS-R22MC	R22	0.22 \pm 20%	4.8(4.0)	17.0(20.0)	16.0
05	0518CDMCCDS-R33MC	R33	0.33 \pm 20%	6.5(5.5)	16.0(19.0)	14.5
06	0518CDMCCDS-R47MC	R47	0.47 \pm 20%	9.0(7.7)	12.8(15.0)	10.5
07	0518CDMCCDS-R56MC	R56	0.56 \pm 20%	10.0(8.0)	12.5(14.7)	10.0
08	0518CDMCCDS-R68MC	R68	0.68 \pm 20%	12.1(10.5)	11.5(13.5)	9.5
09	0518CDMCCDS-1R0MC	1R0	1.0 \pm 20%	17(15)	11.1(13.1)	7.5
10	0518CDMCCDS-1R5MC	1R5	1.5 \pm 20%	26(21)	9.0(10.6)	6.6
11	0518CDMCCDS-2R2MC	2R2	2.2 \pm 20%	35(30)	6.0(7.1)	5.2
12	0518CDMCCDS-3R3MC	3R3	3.3 \pm 20%	58(52)	5.4(6.3)	4.2
13	0518CDMCCDS-4R7MC	4R7	4.7 \pm 20%	85(78)	4.4(5.1)	3.2
14	0518CDMCCDS-5R6MC	5R6	5.6 \pm 20%	95(86)	4.1(4.8)	2.8
15	0518CDMCCDS-6R8MC	6R8	6.8 \pm 20%	120(107)	3.6(4.3)	2.4
16	0518CDMCCDS-100MC	100	10 \pm 20%	155(140)	3.0(3.5)	2.3
17	0518CDMCCDS-150MC	150	15 \pm 20%	260(240)	1.7(2.0)	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

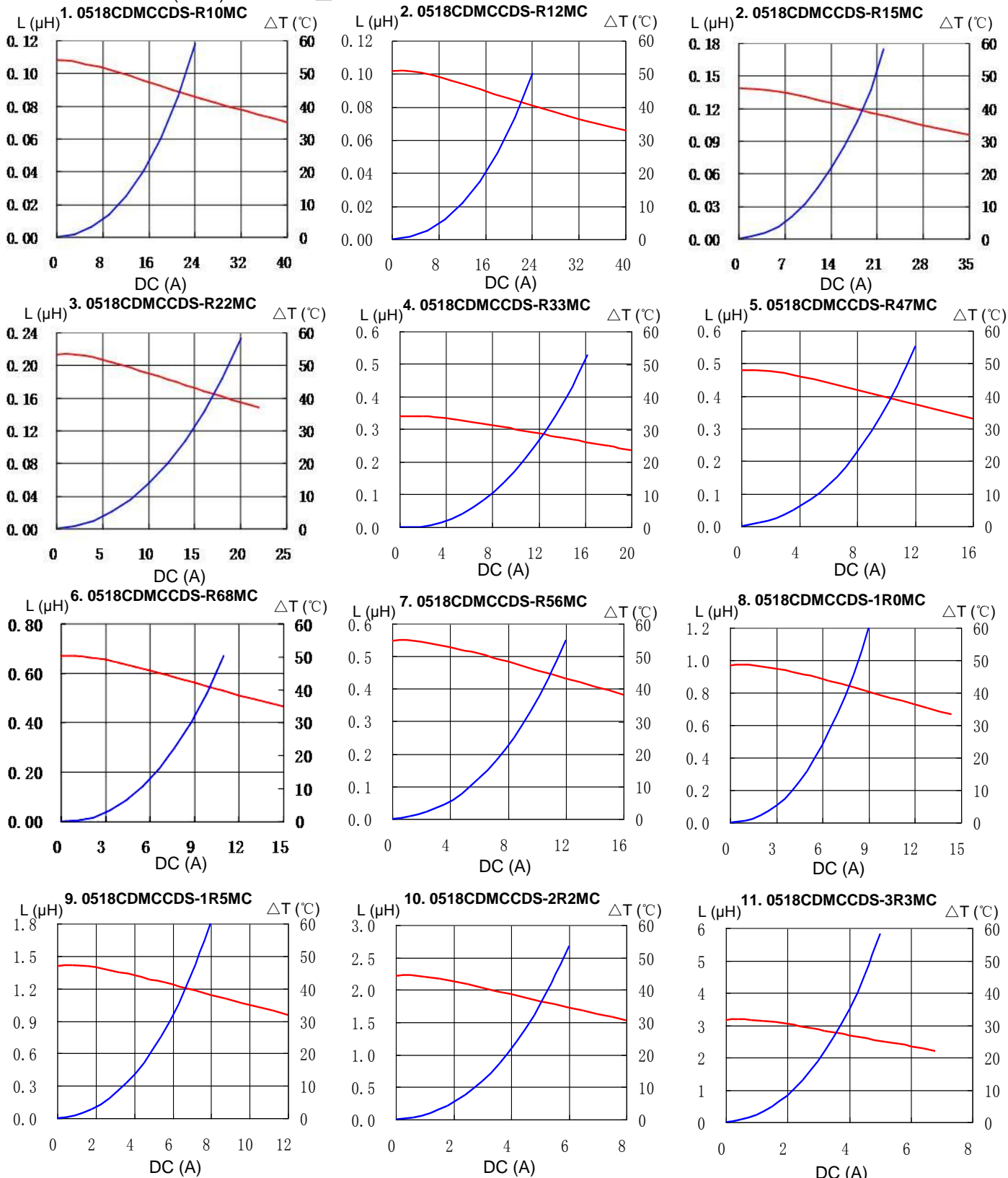
$\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$). Board conditions: FR4, Copper=70 μm , four-layer PWB, $t=1.6\text{mm}$.

SMD Power Inductor 0518CDMCC/DS



Saturation Current & Temperature Rise Graph

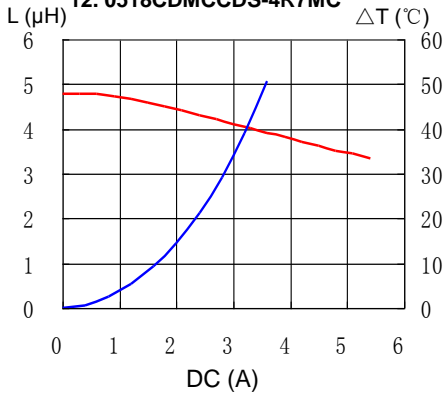
— L (20°C) — ΔT



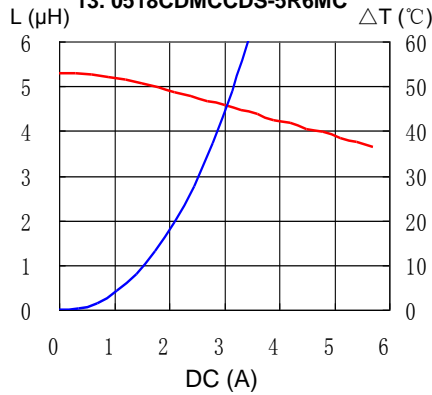
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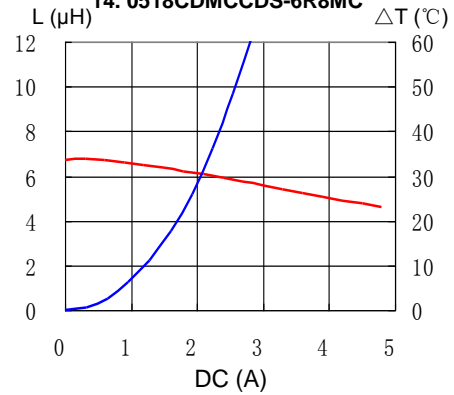
12. 0518CDMCCDS-4R7MC



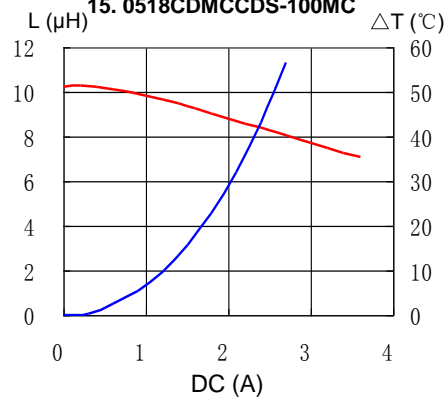
13. 0518CDMCCDS-5R6MC



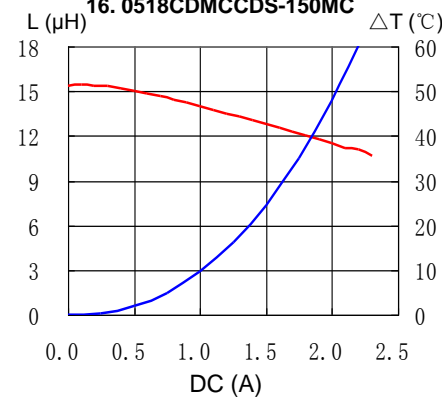
14. 0518CDMCCDS-6R8MC



15. 0518CDMCCDS-100MC

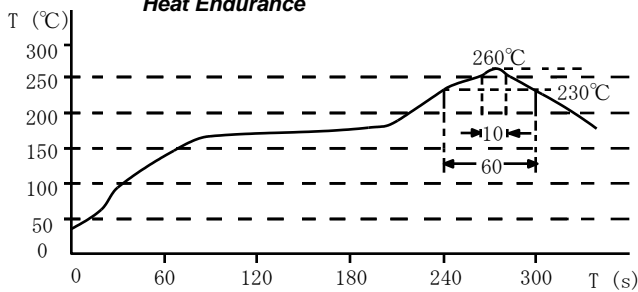


16. 0518CDMCCDS-150MC

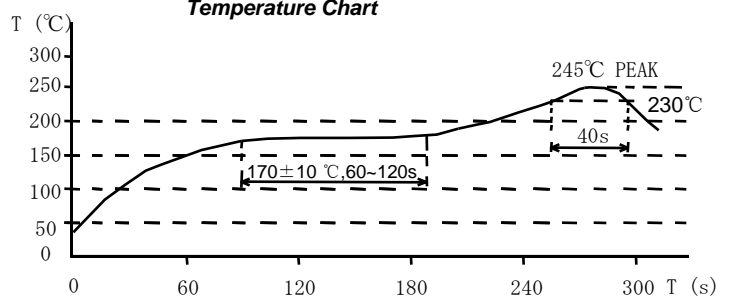


Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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