

# SMD Power Inductor 0412CDMC/DS



Halogen Free

## Description

- Magnetically shielded.
- L × W × H: 4.75 × 4.35 × 1.2 mm Max.
- Product weight: 0.12 g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Environmental Data

- Operating temperature range: -40°C ~ +105°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +105°C
- Solder reflow temperature: 260 °C peak.

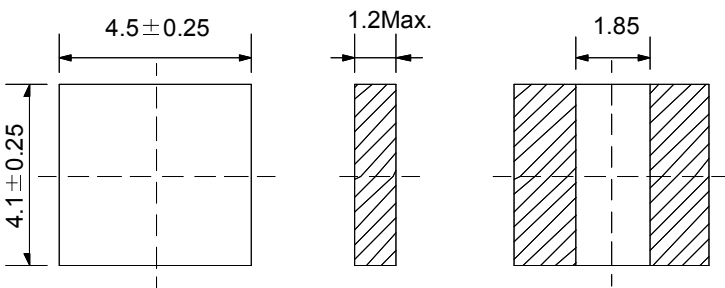
## Packaging

- Carrier tape and reel packaging.

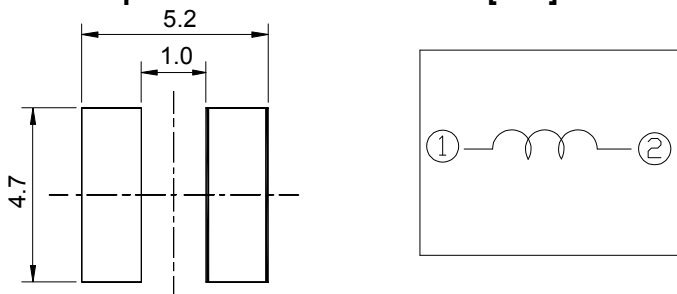
## Applications

- Ideally used in notebook, ultrabook, tablet PC, LCD display, SSD and other low profile high current application.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Electrical Characteristics

| Part Number      | Stamp | Inductance<br>( $\mu$ H)<br>[within] ※1 | D.C.R<br>(m $\Omega$ )<br>(at 25°C) | Saturation<br>Current (A) ※2 | Temperature rise<br>Current (A) |                  |
|------------------|-------|---|-------------------------------------|------------------------------|---------------------------------|------------------|
|                  |       |   |                                     |                              | V method<br>※3                  | T-C method<br>※4 |
| 0412CDMCDS-R47NC | R47   | 0.47 ± 30 %                             | 20 ± 20 %                           | 7.5                          | 3.8                             | 4.8              |
| 0412CDMCDS-1R0MC | 1R0   | 1.0 ± 20 %                              | 40 ± 20 %                           | 6.2                          | 2.8                             | 3.2              |
| 0412CDMCDS-1R5MC | 1R5   | 1.5 ± 20 %                              | 60 ± 20 %                           | 5.1                          | 2.4                             | 2.7              |
| 0412CDMCDS-2R2MC | 2R2   | 2.2 ± 20 %                              | 80 ± 20 %                           | 4.4                          | 2.0                             | 2.4              |
| 0412CDMCDS-3R3MC | 3R3   | 3.3 ± 20 %                              | 115 ± 20 %                          | 3.7                          | 1.8                             | 2.0              |
| 0412CDMCDS-4R7MC | 4R7   | 4.7 ± 20 %                              | 180 ± 20 %                          | 2.7                          | 1.4                             | 1.6              |
| 0412CDMCDS-6R8MC | 6R8   | 6.8 ± 20 %                              | 250 ± 20 %                          | 2.3                          | 1.2                             | 1.4              |
| 0412CDMCDS-100MC | 100   | 10.0 ± 20 %                             | 370 ± 20 %                          | 2.0                          | 1.0                             | 1.2              |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 70% of it's nominal value.

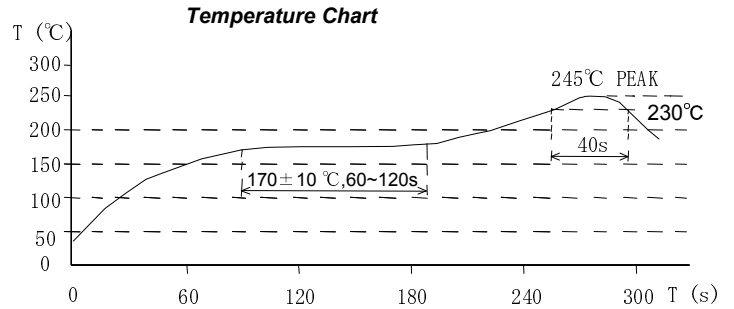
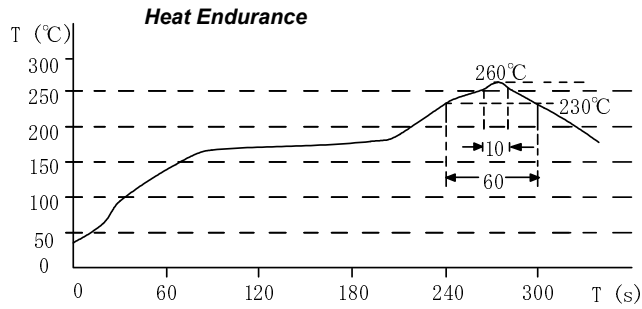
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta T = 40^\circ\text{C}$  ( $T_a = 20^\circ\text{C}$ ).

※4. Temperature rise current: The value of D.C. current when the top surface temperature rise of test sample is  $\Delta T = 40^\circ\text{C}$ . ( $T_a = 20^\circ\text{C}$ )

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## Solder Reflow Condition



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