

**MDA Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 1050**



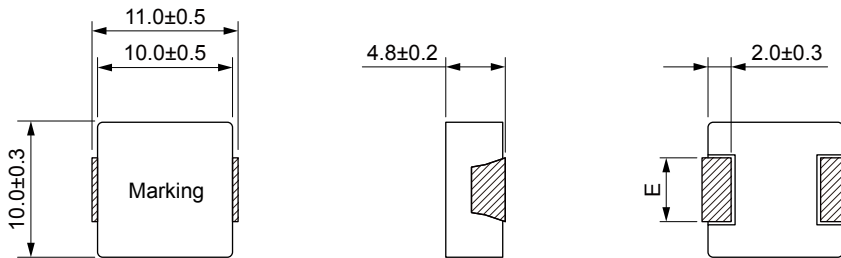
**FEATURES**

- Shielded construction
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- High reliability -Reliability test complied to AEC-Q200
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 500PCS

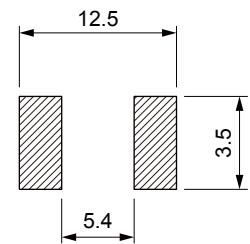
**APPLICATION**

- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

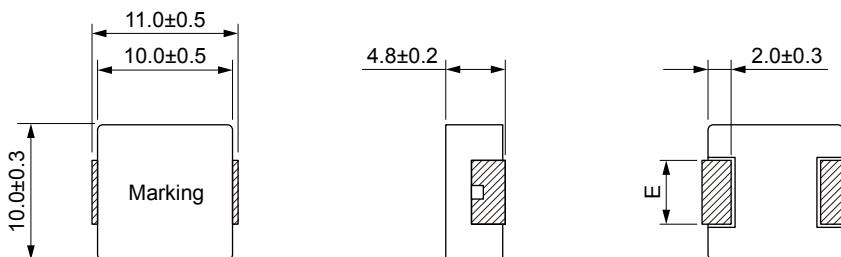
**Dimensions: [mm] 0.36μH-1.50μH**



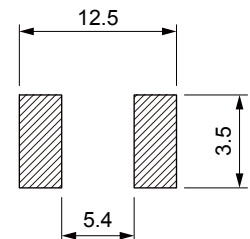
**Land Pattern: [mm]**



**Dimensions: [mm] 2.2μH-47μH**



**Land Pattern: [mm]**



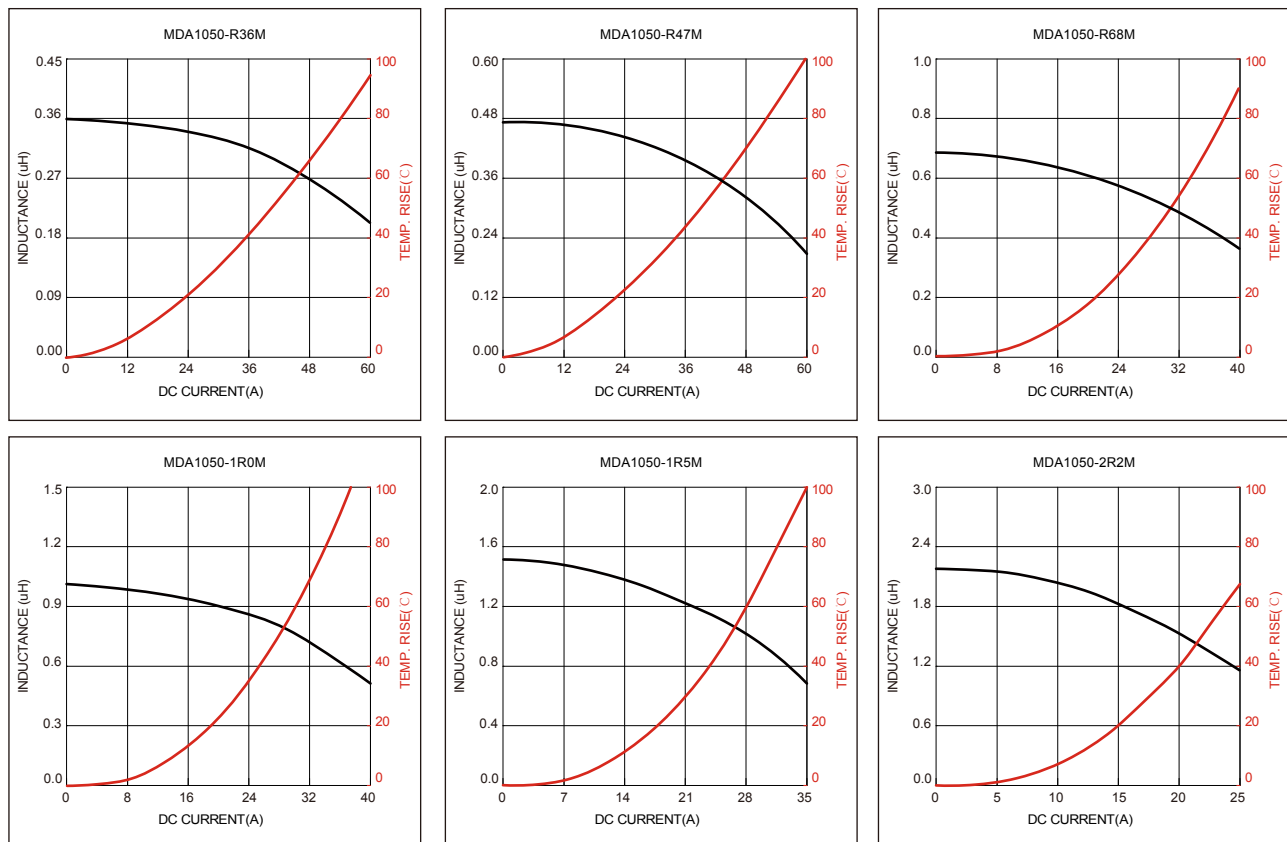
**Electrical Properties:**

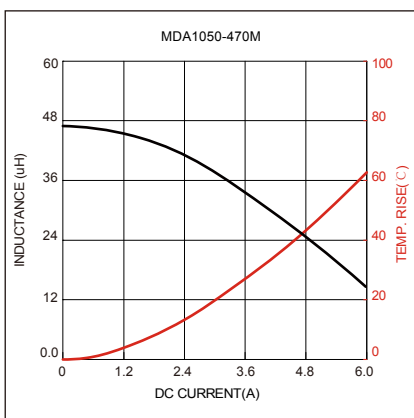
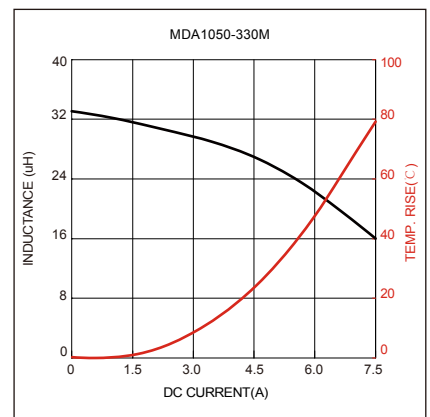
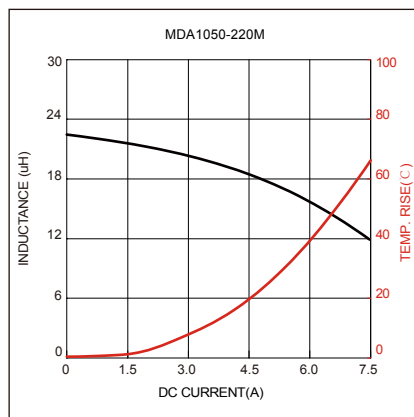
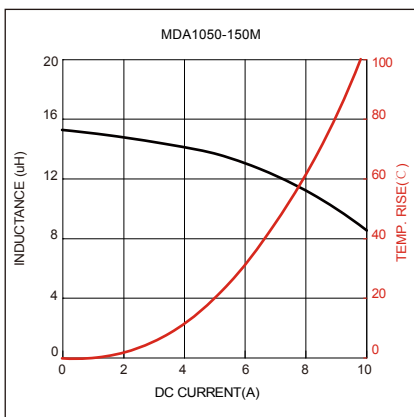
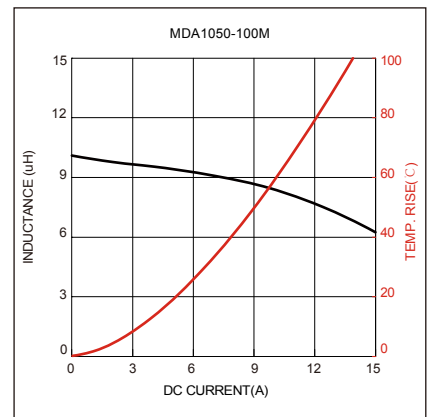
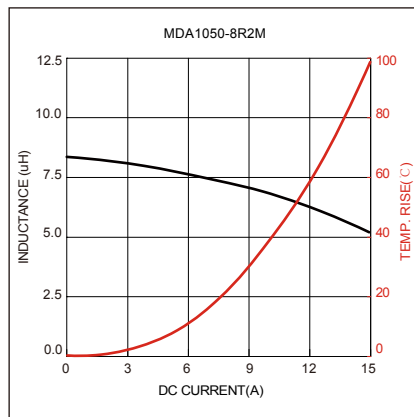
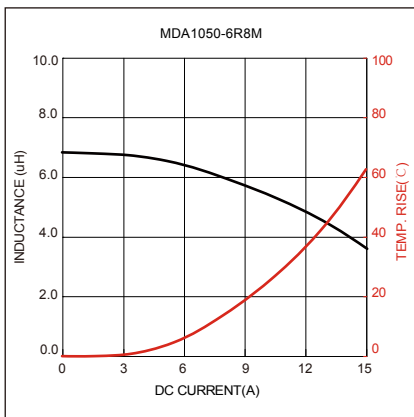
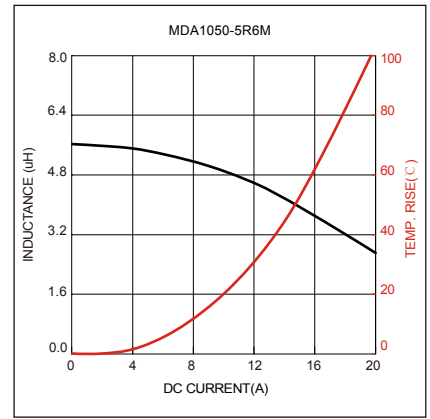
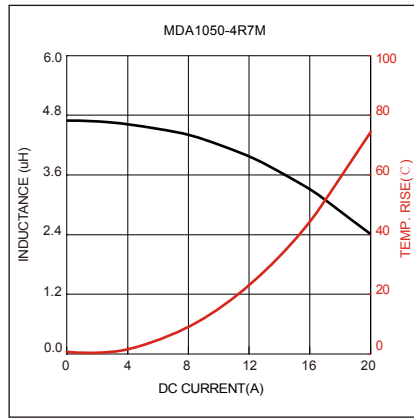
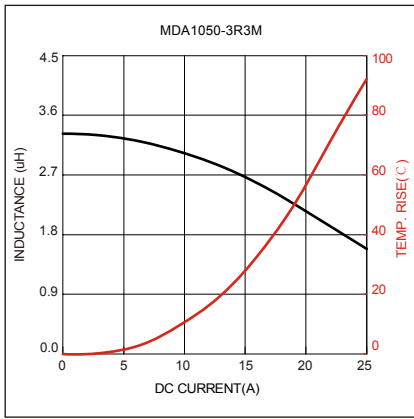
| Part No      | Inductance @ 100KHz/1V (μH) | Tolerance | Temperature Rise Current Typ. (A) | Saturation Current Typ. (A) | DC Resistance Typ. (mΩ) | DC Resistance Max. (mΩ) | E       |
|--------------|-----------------------------|-----------|-----------------------------------|-----------------------------|-------------------------|-------------------------|---------|
| MDA1050-R36M | 0.36                        | ±20%      | 34.0                              | 52.0                        | 0.82                    | 0.92                    | 3.0±0.3 |
| MDA1050-R47M | 0.47                        | ±20%      | 33.0                              | 46.0                        | 1.15                    | 1.32                    | 3.0±0.3 |
| MDA1050-R68M | 0.68                        | ±20%      | 28.0                              | 35.0                        | 1.60                    | 1.90                    | 2.5±0.3 |

| Part No      | Inductance @ 100KHz/1V (μH) | Tolerance | Temperature Rise Current Typ. (A) | Saturation Current Typ. (A) | DC Resistance Typ. (mΩ) | DC Resistance Max. (mΩ) | E       |
|--------------|-----------------------------|-----------|-----------------------------------|-----------------------------|-------------------------|-------------------------|---------|
| MDA1050-1R0M | 1.00                        | ±20%      | 25.0                              | 33.0                        | 2.60                    | 3.00                    | 2.5±0.3 |
| MDA1050-1R5M | 1.50                        | ±20%      | 23.0                              | 27.0                        | 3.40                    | 3.80                    | 2.5±0.3 |
| MDA1050-2R2M | 2.20                        | ±20%      | 19.5                              | 20.0                        | 5.10                    | 5.60                    | 3.0±0.3 |
| MDA1050-3R3M | 3.30                        | ±20%      | 17.0                              | 17.5                        | 8.10                    | 9.10                    | 3.0±0.3 |
| MDA1050-4R7M | 4.70                        | ±20%      | 15.0                              | 16.0                        | 9.30                    | 10.5                    | 3.0±0.3 |
| MDA1050-5R6M | 5.60                        | ±20%      | 13.0                              | 15.0                        | 12.8                    | 14.4                    | 3.0±0.3 |
| MDA1050-6R8M | 6.80                        | ±20%      | 12.0                              | 14.0                        | 15.0                    | 17.3                    | 3.0±0.3 |
| MDA1050-8R2M | 8.20                        | ±20%      | 10.0                              | 13.5                        | 16.1                    | 18.8                    | 3.0±0.3 |
| MDA1050-100M | 10.0                        | ±20%      | 7.6                               | 13.0                        | 18.9                    | 21.8                    | 3.0±0.3 |
| MDA1050-150M | 15.0                        | ±20%      | 6.5                               | 8.5                         | 32.0                    | 39.0                    | 3.0±0.3 |
| MDA1050-220M | 22.0                        | ±20%      | 6.0                               | 6.0                         | 44.0                    | 54.0                    | 3.0±0.3 |
| MDA1050-330M | 33.0                        | ±20%      | 5.5                               | 5.8                         | 74.0                    | 86.0                    | 3.0±0.3 |
| MDA1050-470M | 47.0                        | ±20%      | 4.5                               | 4.0                         | 106                     | 127                     | 3.0±0.3 |

Saturation Current will cause L to drop approximately 30%  
 Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

### Typical Electrical Characteristics:





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