

**MDA Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 1040**



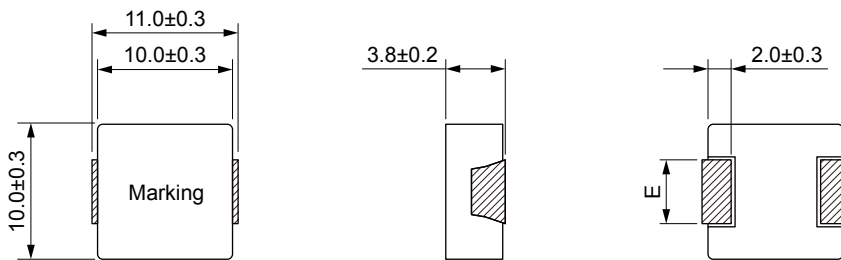
**FEATURES**

- 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

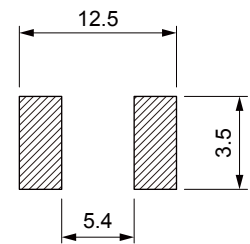
**APPLICATION**

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

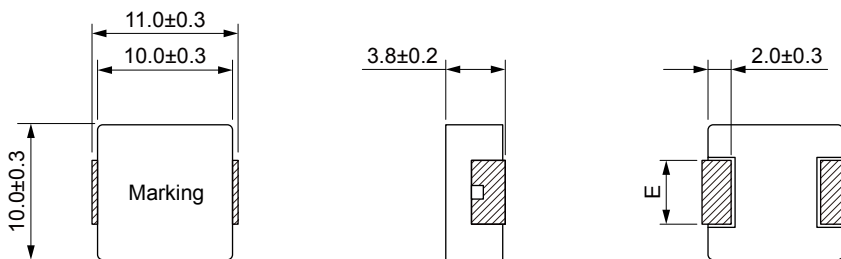
**Dimensions: [mm] 0.15μH-1.50μH**



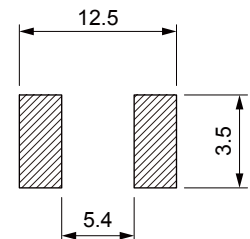
**Land Pattern: [mm]**



**Dimensions: [mm] 1.8μH-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
MDA1040-R15N	0.15	±30%	44.0	82.0	0.50	0.60	3.0±0.3
MDA1040-R22M	0.22	±20%	36.0	70.0	0.72	0.83	3.0±0.3
MDA1040-R36M	0.36	±20%	33.0	51.0	1.05	1.18	3.0±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
MDA1040-R47M	0.47	±20%	32.0	46.0	1.30	1.50	3.0±0.3
MDA1040-R56M	0.56	±20%	25.0	34.0	1.60	1.80	2.5±0.3
MDA1040-R68M	0.68	±20%	23.0	31.0	1.90	2.20	2.5±0.3
MDA1040-1R0M	1.00	±20%	20.0	29.0	2.90	3.25	2.5±0.3
MDA1040-1R5M	1.50	±20%	17.5	26.0	3.70	4.20	2.5±0.3
MDA1040-1R8M	1.80	±20%	16.5	23.0	5.10	5.70	3.0±0.3
MDA1040-2R2M	2.20	±20%	15.0	20.0	5.80	6.70	3.0±0.3
MDA1040-3R3M	3.30	±20%	11.0	17.5	10.5	11.8	3.0±0.3
MDA1040-4R7M	4.70	±20%	8.80	15.2	15.8	19.0	3.0±0.3
MDA1040-5R6M	5.60	±20%	8.00	14.1	19.0	22.8	3.0±0.3
MDA1040-6R8M	6.80	±20%	7.80	12.2	22.0	24.5	3.0±0.3
MDA1040-8R2M	8.20	±20%	7.60	9.50	25.0	28.0	3.0±0.3
MDA1040-100M	10.0	±20%	7.50	8.60	27.0	30.0	3.0±0.3
MDA1040-150M	15.0	±20%	6.25	7.00	41.0	45.0	3.0±0.3
MDA1040-220M	22.0	±20%	5.00	6.20	58.0	66.0	3.0±0.3
MDA1040-330M	33.0	±20%	4.40	5.50	84.0	91.0	3.0±0.3
MDA1040-470M	47.0	±20%	3.50	4.00	125	143	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:

