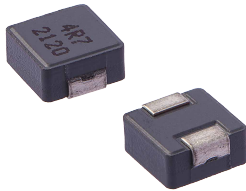


**MDCA Series**  
**SMD Power Inductor**  
**Size 7050**



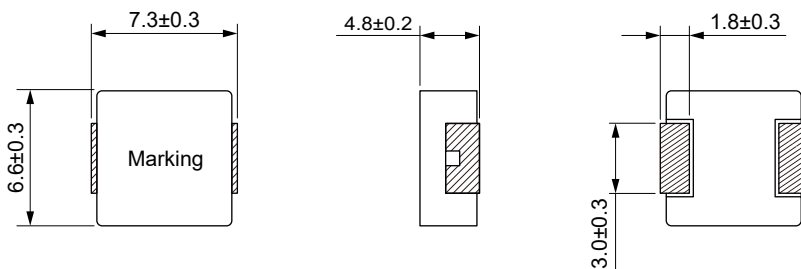
**FEATURES**

- Shielded construction.
- Capable of corresponding high frequency.
- Low loss realized with low DCR.
- High performance (Isat) realized by Carbonyl Powder.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +125 °C(including self-temperature rise)
- Quantity:800pcs

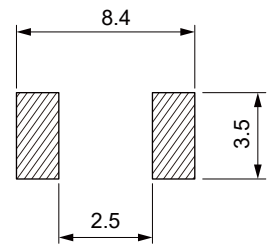
**APPLICATION**

- 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]**



**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)
MDCA7050-R33M	0.33	±20%	25.0	32.0	2.5	3.0
MDCA7050-R47M	0.47	±20%	22.0	30.0	3.5	3.9
MDCA7050-R56M	0.56	±20%	20.0	27.0	3.6	4.2
MDCA7050-R68M	0.68	±20%	18.0	24.0	4.0	4.5
MDCA7050-R82M	0.82	±20%	16.5	22.0	4.6	4.9
MDCA7050-1R0M	1.00	±20%	15.0	20.0	6.1	6.5
MDCA7050-1R5M	1.50	±20%	12.0	16.5	8.6	9.0
MDCA7050-2R2M	2.20	±20%	10.0	14.0	11.2	12.0
MDCA7050-3R3M	3.30	±20%	8.0	12.0	19.0	20.9
MDCA7050-4R7M	4.70	±20%	6.5	10.0	28.0	30.8
MDCA7050-5R6M	5.60	±20%	6.0	9.0	43.5	49.0
MDCA7050-6R8M	6.80	±20%	5.5	8.5	46.0	51.5
MDCA7050-8R2M	8.20	±20%	5.0	8.0	56.0	63.0
MDCA7050-100M	10.0	±20%	4.0	7.5	60.0	69.0

Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDCA7050-150M	15.0	±20%	3.5	6.0	81	92
MDCA7050-220M	22.0	±20%	2.5	5.5	140	170
MDCA7050-330M	33.0	±20%	2.0	3.5	173	200

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:

