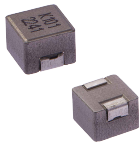


**MDSA Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 7050**



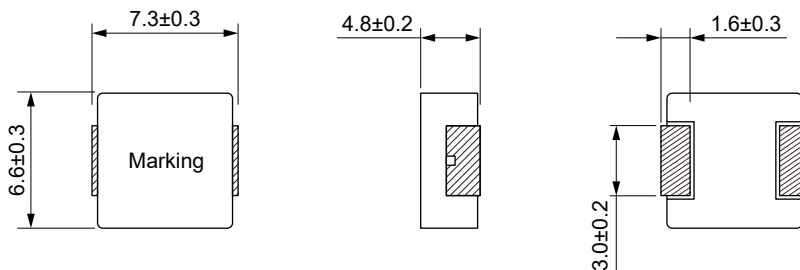
**FEATURES**

- 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.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 800PCS

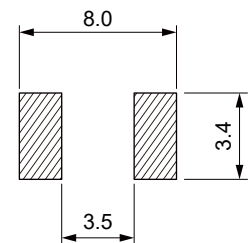
**APPLICATION**

- Noise filter for various drive circuitry requiring high temp. operation and peak current handing capability.
- Boost-Converter
- Buck-Converter DC/DC

**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)
MDSA7050-1R0M	1.00	±20%	16.0	15.0	5.80	6.50
MDSA7050-1R5M	1.50	±20%	14.0	12.0	6.80	7.50
MDSA7050-2R2M	2.20	±20%	13.0	9.5	10.5	12.0
MDSA7050-3R3M	3.30	±20%	12.5	9.0	14.5	17.0
MDSA7050-4R7M	4.70	±20%	10.5	8.5	21.0	25.0
MDSA7050-5R6M	5.60	±20%	9.5	7.5	29.0	34.0
MDSA7050-6R8M	6.80	±20%	8.6	7.1	31.0	37.0
MDSA7050-8R2M	8.20	±20%	7.2	6.2	40.0	46.0

Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDSA7050-100M	10.0	±20%	6.6	5.6	45.0	54.0
MDSA7050-150M	15.0	±20%	4.7	3.8	74.0	86.0
MDSA7050-220M	22.0	±20%	4.0	3.4	124	144
MDSA7050-330M	33.0	±20%	2.8	2.0	145	172
MDSA7050-470M	47.0	±20%	2.5	1.7	278	325

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:

