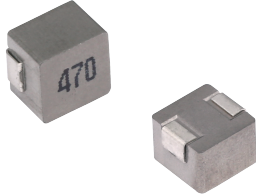


**MDE Series**  
Molding Power Inductors  
Size 1040



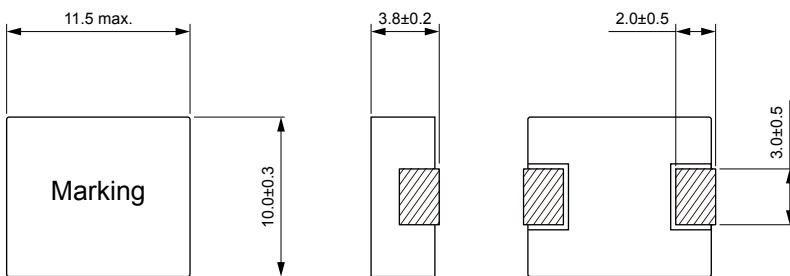
**FEATURES**

- High rated current
- Frequency up to 3 MHz
- 125 °C maximum total temperature operation
- Low core loss
- Ultra low buzz noise due to molding construction
- Halogen Free & ROHS compliant
- Operating temperature range - 55 °C to + 125 °C
- Quantity: 500pcs

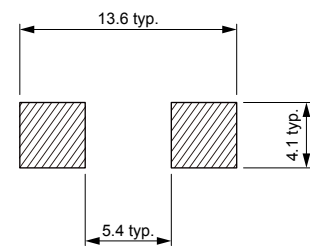
**APPLICATION**

- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

**Dimensions: [mm]**



**Land Pattern: [mm]**



**Electrical Properties:**

Part No	Inductance @ 100kHz/1V (μH)	Tolerance	DC Resistance Max. (mΩ)	Saturation Current Typ. (A)	Temperature Rise Current Typ. (A)
MDE1040-R15M	0.15	±20%	0.65	75.0	45.0
MDE1040-R22M	0.22	±20%	1.00	60.0	35.0
MDE1040-R30M	0.30	±20%	1.10	45.0	35.0
MDE1040-R36M	0.36	±20%	1.20	45.0	30.0
MDE1040-R47M	0.47	±20%	1.70	40.0	30.0
MDE1040-R56M	0.56	±20%	1.80	33.0	25.0
MDE1040-R68M	0.68	±20%	2.40	30.0	23.0
MDE1040-R80M	0.80	±20%	2.70	29.0	23.0
MDE1040-1R0M	1.00	±20%	3.30	28.0	19.0
MDE1040-1R5M	1.50	±20%	4.20	24.0	16.0
MDE1040-2R2M	2.20	±20%	7.00	16.5	12.0
MDE1040-3R3M	3.30	±20%	11.8	16.0	11.0
MDE1040-4R7M	4.70	±20%	20.0	13.0	9.00
MDE1040-6R8M	6.80	±20%	25.0	12.0	8.50
MDE1040-8R2M	8.20	±20%	27.0	9.00	8.00
MDE1040-100M	10.0	±20%	30.0	8.50	7.80

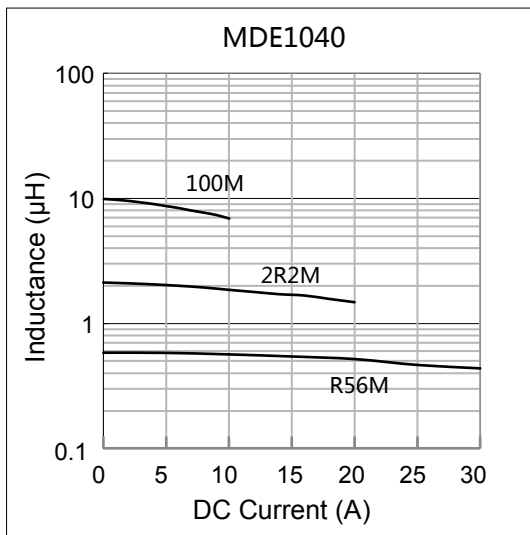
Part No	Inductance @ 100kHz/1V (μH)	Tolerance	DC Resistance Max. (mΩ)	Saturation Current Typ. (A)	Temperature Rise Current Typ. (A)
MDE1040-150M	15.0	±20%	45.0	7.00	6.50
MDE1040-220M	22.0	±20%	66.0	5.50	5.00
MDE1040-330M	33.0	±20%	92.0	4.80	4.40
MDE1040-470M	47.0	±20%	145	3.50	3.30
MDE1040-680M	68.0	±20%	195	3.00	2.50

Saturation Current will cause L to drop approximately 30%

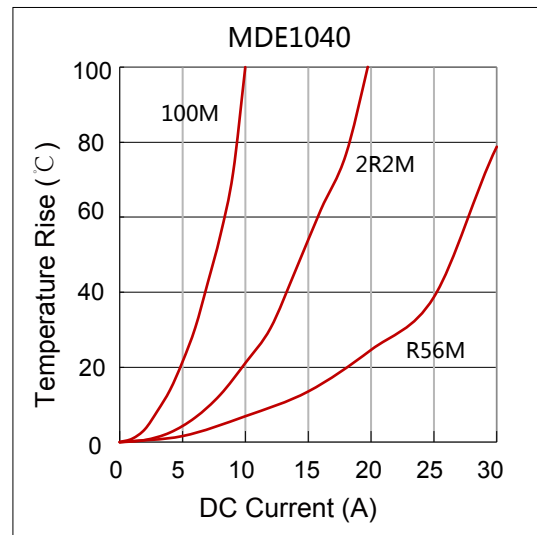
Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

### Typical Electrical Characteristics:

Inductance vs DC Current Characteristics:



Temperature Rise vs DC Current Characteristics:



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[MHQ1005P5N1S](#) [MHQ1005P8N2J](#) [PE-53601NL](#) [PE-53602NL](#) [PG0936.113NLT](#) [9220-20](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#)  
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