

**MD Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 4020**



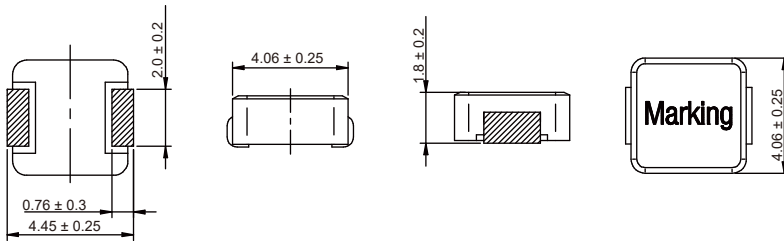
**CHARACTERISTICS**

- Molded type
- High saturation current due to CIP material
- Nature air gap and no acoustic noise
- Different sizes available
- Quantity: 3000pcs

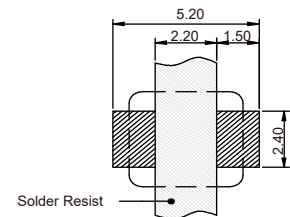
**APPLICATION**

- High current DC/DC converter
- LC filter

**Dimensions: [mm]**



**Land Pattern: [mm]**



**Electrical Properties:**

Part No	Inductance (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation current Typ. (A)	DCR Typ. (mΩ)	DCR Max. (mΩ)
MD4020-R10N	0.10	±30%	12.0	35	3.2	4.0
MD4020-R18N	0.18	±30%	13.5	28	4.6	5.4
MD4020-R22N	0.22	±30%	13.0	24	6.6	7.3
MD4020-R33M	0.33	±20%	10.0	18	7.8	8.6
MD4020-R47M	0.47	±20%	8.0	12	11.2	14
MD4020-R56M	0.56	±20%	7.3	10	13.5	16
MD4020-R68M	0.68	±20%	7.0	10	16	19
MD4020-1R0M	1.00	±20%	5.0	8.5	22	27
MD4020-1R2M	1.20	±20%	4.8	7.8	25	30
MD4020-1R5M	1.50	±20%	4.5	7.0	34.8	42
MD4020-2R2M	2.20	±20%	4.0	6.0	51	61
MD4020-3R3M	3.30	±20%	3.5	4.0	69	76
MD4020-4R7M	4.70	±20%	2.6	3.5	95	105
MD4020-5R6M	5.60	±20%	2.2	3.0	112	125
MD4020-6R8M	6.80	±20%	2.1	2.8	150	172
MD4020-8R2M	8.20	±20%	2.0	2.5	158	180

Part No	Inductance (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation current Typ. (A)	DCR Typ. (mΩ)	DCR Max. (mΩ)
MD4020-100M	10.0	±20%	1.8	2.3	215	243
MD4020-150M	15.0	±20%	1.5	1.9	325	374
MD4020-220M	22.0	±20%	1.2	1.4	470	500

Operating temperature : -40 °C ~ +125 °C

Temperature rise current : The actual value of DC current when the temperature rise is ΔT40 °C

Saturation Current that will cause initial inductance to drop 20% approximately .

Saturation Current that will cause initial inductance to drop 30% at 0.18uH approximately.

### Typical Electrical Characteristics:

