



# MDCA Series

## SMD Power Inductor

### Size 3020



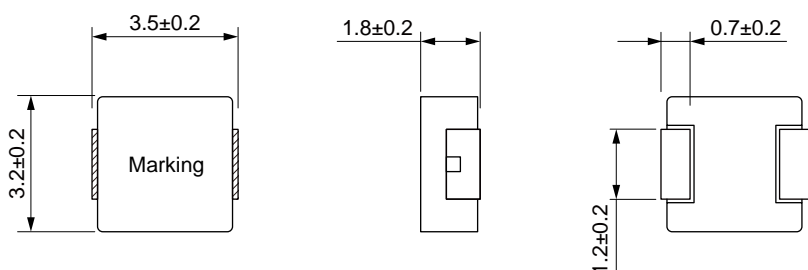
#### FEATURES

- Carbonyl Powder.
- Compact design.
- High current, low DCR, high efficiency.
- Very low acoustic noise and very low leakage flux noise.
- High reliability.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +125 °C (including self-temperature rise)
- Quantity: 3000pcs

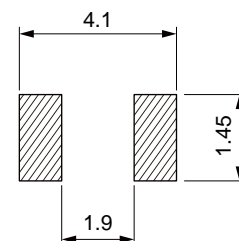
#### APPLICATION

- Note PC power system, incl. IMVP-6
- DC/DC converter

#### Dimensions: [mm]



#### Land Pattern: [mm]

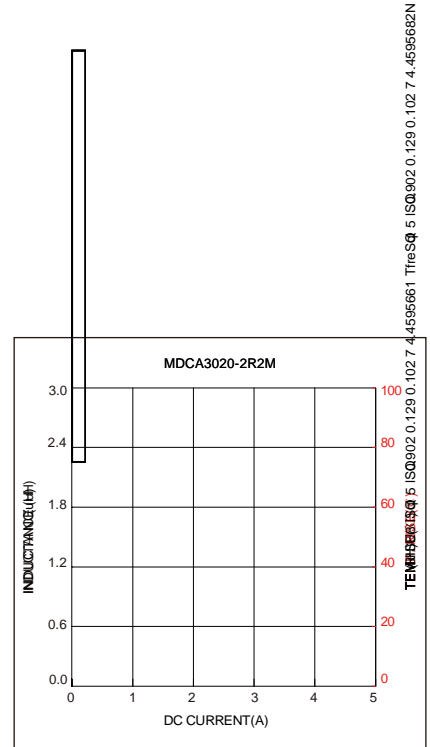
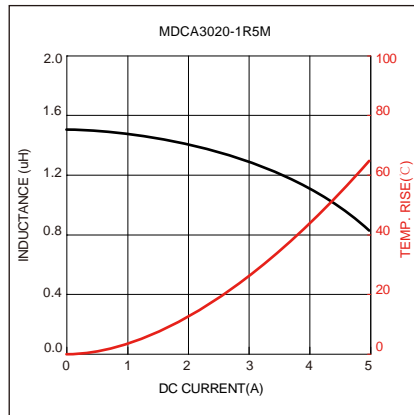


#### Electrical Properties:

Part No	Inductance @ 100KHz/1V ( $\mu$ H)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (m $\Omega$ )	DC Resistance Max. (m $\Omega$ )
MDCA3020-R10N	0.10	±30%	10.5	14.0	6.6	9.0
MDCA3020-R22N	0.22	±30%	9.0	11.2	11.0	14.0
MDCA3020-R33M	0.33	±20%	8.0	10.0	17.0	21.0
MDCA3020-R47M	0.47	±20%	7.0	9.0	19.7	23.0
MDCA3020-R68M	0.68	±20%	5.5	7.0	25.5	29.0
MDCA3020-R82M	0.82	±20%	4.8	6.0	27.0	32.0
MDCA3020-1R0M	1.00	±20%	4.0	5.0	32.0	38.0
MDCA3020-1R5M	1.50	±20%	3.8	4.0	42.0	50.0
MDCA3020-2R2M	2.20	±20%	3.5	3.7	65.0	75.0
MDCA3020-3R3M	3.30	±20%	3.0	3.5	125	145
MDCA3020-4R7M	4.70	±20%	2.6	3.0	172	200
MDCA3020-5R6M	5.60	±20%	2.2	2.6	205	238
MDCA3020-6R8M	6.80	±20%	1.9	2.2	260	300
MDCA3020-8R2M	8.20	±20%	1.6	1.9	340	390
MDCA3020-100M	10.0	±20%	1.4	1.6	366	422

Saturation Current will cause L to drop approximately 30%

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



ISO 9002 0.129 0.102 7 4.4595661 TReSQ 5 ISO 902 0.129 0.102 7 4.4595682N

