

MDCA Series

SMD Power Inductor

Size 3012



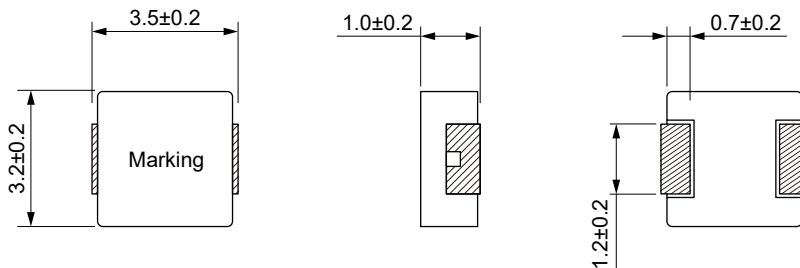
FEATUERS

- 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)

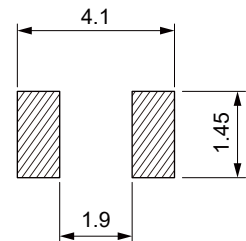
APPLICATION

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

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)
MDCA3012-R22M	0.22	±20%	6.5	10.0	14.0	17.0
MDCA3012-R33M	0.33	±20%	6.2	9.2	16.0	20.0
MDCA3012-R36M	0.36	±20%	6.0	8.5	18.5	23.0
MDCA3012-R47M	0.47	±20%	5.0	7.2	25.0	30.0
MDCA3012-R56M	0.56	±20%	4.5	6.6	31.0	36.0
MDCA3012-R68M	0.68	±20%	4.0	6.1	34.0	40.0
MDCA3012-R82M	0.82	±20%	3.5	5.8	41.0	48.0
MDCA3012-1R0M	1.00	±20%	3.3	5.5	50.0	60.0
MDCA3012-1R5M	1.50	±20%	3.0	4.0	71.0	85.0
MDCA3012-2R2M	2.20	±20%	2.7	3.4	98.0	115
MDCA3012-3R3M	3.30	±20%	2.0	3.1	191	210
MDCA3012-4R7M	4.70	±20%	1.6	2.8	266	293
MDCA3012-5R6M	5.60	±20%	1.5	2.2	310	360
MDCA3012-6R8M	6.80	±20%	1.4	2.0	360	400

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MDCA3012-8R2M	8.20	$\pm 20\%$	1.2	1.7	420	463
MDCA3012-100M	10.0	$\pm 20\%$	1.0	1.4	498	550

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:

