

MDA Series

SMD Low Profile High Current Molded Inductor

Size 1870



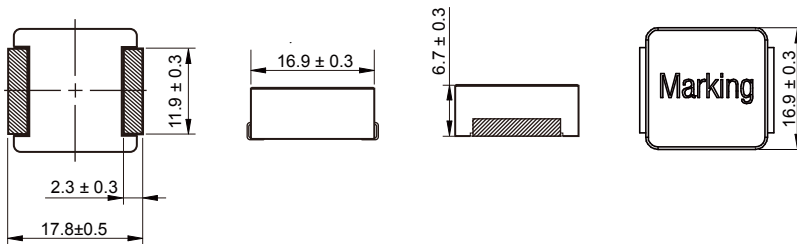
FEATURES

- Frequency range up to 5.0 MHz
- High current capability and handles high transient current spikes
- High performance (I_{SAT}) realized by metal dust core.
- Very low acoustic noise and very low leakage flux noise.
- AEC-Q200 qualified
- Operating temperature: -55° to $+155^{\circ}$ (including self-temperature rise)
- Quantity: 300pcs

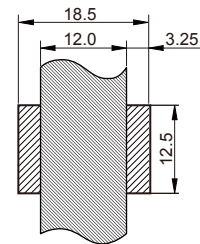
APPLICATION

- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors: windshield wipers / power seats / power mirrors / heating and ventilation blowers / HID lighting
- LED drivers

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

Part No	L@100KHz /1.0V (μ H)	Tolerance	I_R Typ. (A)	I_R Max. (A)	I_{SAT} Typ. (A)	I_{SAT} Max. (A)	R_{DC} Typ. (m Ω)	R_{DC} Max. (m Ω)
MDA1870-R47M	0.47	$\pm 20\%$	60	55	110	100	0.7	0.9
MDA1870-R56M	0.56	$\pm 20\%$	56	50	80	70	0.81	0.97
MDA1870-1R0M	1.00	$\pm 20\%$	46	42	50	45	1.06	1.3
MDA1870-1R5M	1.50	$\pm 20\%$	39	35	46	40	1.5	1.8
MDA1870-1R8M	1.80	$\pm 20\%$	35	32	40	34	1.7	2.0
MDA1870-2R2M	2.20	$\pm 20\%$	32	30	35	32	1.8	2.2
MDA1870-3R3M	3.30	$\pm 20\%$	30	28	32	29	2.7	3.3
MDA1870-4R7M	4.70	$\pm 20\%$	28	26	29	26	3.7	4.5
MDA1870-6R8M	6.80	$\pm 20\%$	24	22	25	22	6.0	7.2
MDA1870-100M	10.0	$\pm 20\%$	21	19	22	19	9.2	10.6
MDA1870-150M	15.0	$\pm 20\%$	16	14	16	14	12.8	15.5
MDA1870-220M	22.0	$\pm 20\%$	13.5	11.5	13.5	11.5	20.5	24
MDA1870-330M	33.0	$\pm 20\%$	12	10	12	10	32	37
MDA1870-470M	47.0	$\pm 20\%$	9.5	8	9.5	8.0	40	47

I_R will cause the coil temperature rise approximately $\Delta t 40^{\circ}C$

I_{SAT} will cause L to drop approximately 30% .

Typical Electrical Characteristics:

