

MDA Series

SMD Low Profile High Current Molded Inductor

Size 5030



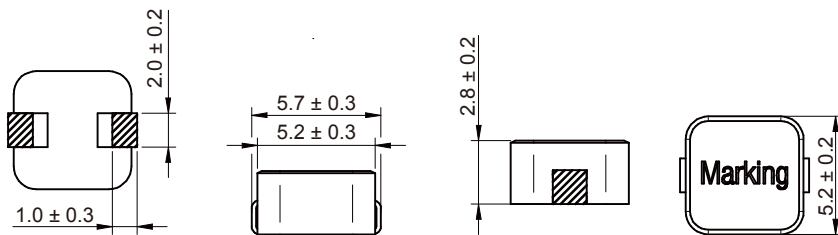
FEATURES

- 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°C to $+125^{\circ}\text{C}$ (including self-temperature rise)

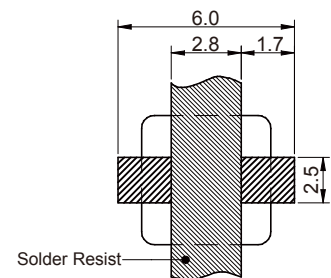
APPLICATION

- 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	$L@100\text{KHz} / 1.0\text{V}$ (μH)	Tolerance	I_R Typ. (A)	I_R Max. (A)	I_{SAT} Typ. (A)	I_{SAT} Max. (A)	R_{DC} Typ. ($\text{m}\Omega$)	R_{DC} Max. ($\text{m}\Omega$)
MDA5030-R47M	0.47	20%	13.5	12.0	10.0	9.0	5.2	6.0
MDA5030-R68M	0.68	20%	12.5	11.0	9.0	8.0	7.4	8.5
MDA5030-R82M	0.82	20%	10.0	9.0	8.8	7.7	8.0	9.2
MDA5030-1R0M	1.00	20%	9.00	8.0	8.5	7.5	10.5	12.0
MDA5030-1R5M	1.50	20%	8.00	7.0	7.5	6.5	13.6	15.7
MDA5030-2R2M	2.20	20%	7.00	6.5	6.5	5.8	21.6	25
MDA5030-3R3M	3.30	20%	6.30	5.8	6.0	5.3	28	33
MDA5030-4R7M	4.70	20%	5.50	4.8	5.3	4.6	38	44
MDA5030-5R6M	5.60	20%	5.00	4.3	4.6	4.0	50	58
MDA5030-6R8M	6.80	20%	4.30	3.7	3.5	3.1	57	66
MDA5030-100M	10.0	20%	3.80	3.4	2.5	2.1	88	103

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

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

Typical Electrical Characteristics:

