

MDA Series

SMD Low Profile High Current Molded Inductor

Size 1350



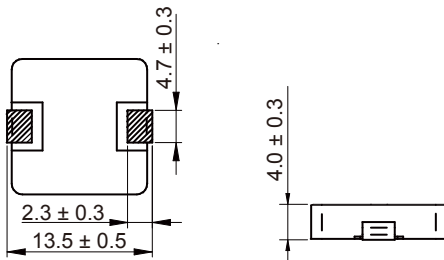
FEATURES

- 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)

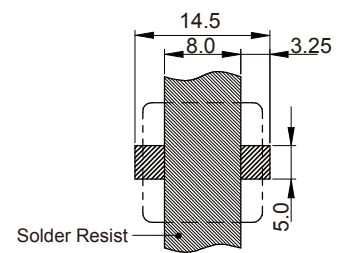
APPLICATION

- 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

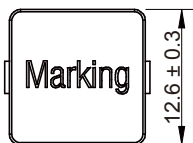
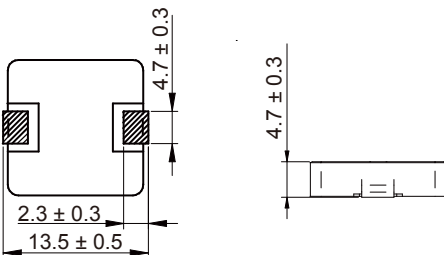
Dimensions: [mm] $\leq 1.0\mu\text{H}$



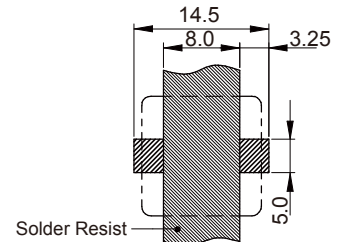
Land Pattern: [mm]



Dimensions: [mm] $\geq 1.5\mu\text{H}$



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. (m Ω)	R_{DC} Max. (m Ω)
MDA1350-R47M	0.47	$\pm 20\%$	38	34	65	58	0.77	0.9
MDA1350-R68M	0.68	$\pm 20\%$	34	31	50	42	1.3	1.55
MDA1350-1R0M	1.0	$\pm 20\%$	30	27	40	34	1.6	1.9

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)
MDA1350-1R5M	1.5	±20%	25	22	31	28	3.2	3.8
MDA1350-2R2M	2.2	±20%	17	15.5	26	23	4.1	4.8
MDA1350-3R3M	3.3	±20%	15.5	14	23	20.5	6.0	7.0
MDA1350-4R7M	4.7	±20%	14	12.5	18.5	16	8.8	10.2
MDA1350-6R8M	6.8	±20%	12	11	16.5	15	13	16
MDA1350-100M	10	±20%	10	9	13	10.5	19.2	22
MDA1350-150M	15	±20%	9.4	8.2	11	9.2	30	36
MDA1350-220M	22	±20%	8.0	7.0	8.5	7.5	42	52
MDA1350-330M	33	±20%	6.0	5.2	7.3	6.5	66	80

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:

