MDA HT Series

SMD Low Profile High Current Molded Inductor Size 1365



FEATURES

- Low loss realized with low DCR.
- Ultra low buzz noise, due to composite construction .
- 100% Lead(Pb)-Free and RoHS compliant.
- High performance (Isat) realized by metal dust core.
- AEC-Q200 qualified.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 500PCS

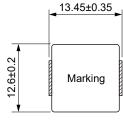
APPLICATION

- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

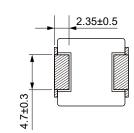
Dimensions: [mm]

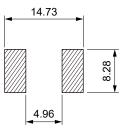
Land Pattern: [mm]

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Electrical Properties:

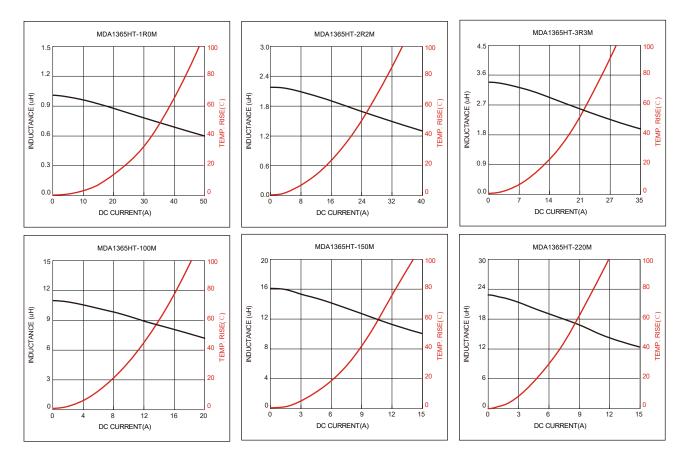
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Max. (mΩ)
MDA1365HT-1R0M	1.0	±20%	32.0	27.5	20.0	17.0	2.1
MDA1365HT-1R5M	1.5	±20%	26.0	23.0	18.0	15.4	3.0
MDA1365HT-2R2M	2.2	±20%	21.0	18.9	17.5	15.0	4.5
MDA1365HT-3R3M	3.3	±20%	18.3	16.5	17.0	14.6	6.0
MDA1365HT-4R7M	4.7	±20%	15.0	13.5	13.5	11.6	8.7
MDA1365HT-6R8M	6.8	±20%	13.8	12.8	10.5	9.0	11.3
MDA1365HT-100M	10	±20%	11.0	9.9	9.2	7.9	17.2
MDA1365HT-150M	15	±20%	8.7	7.8	7.2	6.2	28.2
MDA1365HT-220M	22	±20%	7.0	6.2	6.3	5.4	40.0
MDA1365HT-330M	33	±20%	5.5	5.0	4.3	3.7	69.0
MDA1365HT-470M	47	±20%	4.2	3.8	3.8	3.3	104

Saturation Current will cause L to drop approximately 20%.

Temperature Rise Current: The actual value of DC current when the temperature rise is \triangle T=40°C

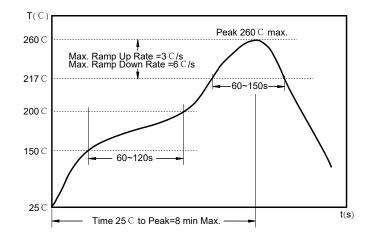
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Typical Electrical Characteristics:





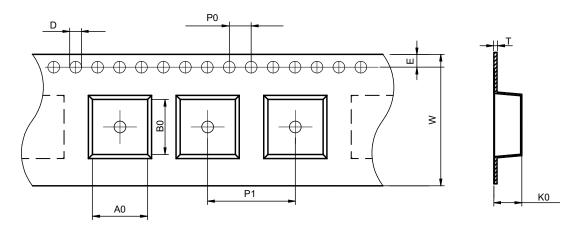
Soldering Reflow:



Preheat condition: $150 \sim 200^{\circ}$ C / $60 \sim 120$ sec. Allowed time above 217° C : $60 \sim 150$ sec. Max temperature: 260° C. Allowed Reflow time: 2x max.

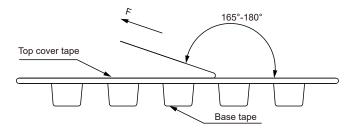
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1365HT	13.1±0.1	14.0 ± 0.1	1.5 ± 0.1	4.0±0.1	16±0.1	24±0.3	6.7±0.1	1.75 ± 0.1	0.50±0.05

Peel force of top cover tape:



The peel force of top cover tape shall be between 0.1 to 1.3 N

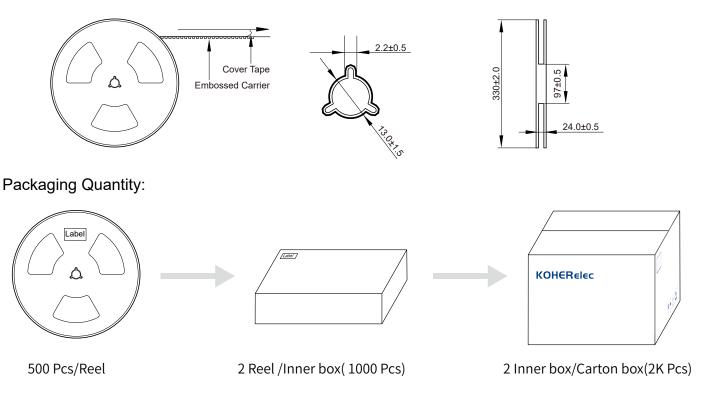
Product Marking:

Marking

KH+Printing (Inductance+period)

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Reel Dimension: [mm]



Cautions and Warnings:

Storage Conditions:

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does. As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.