

MDA HT Series

SMD Moulded Inductor

Size 5040



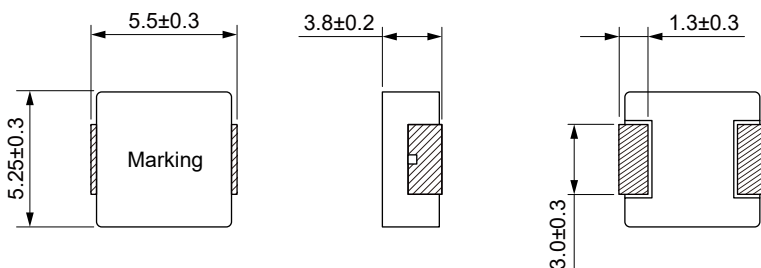
FEATURES

- 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 +165 °C (including self-temperature rise)
- Quantity: 1500PCS

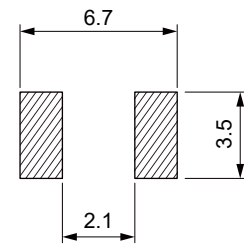
APPLICATION

- 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]



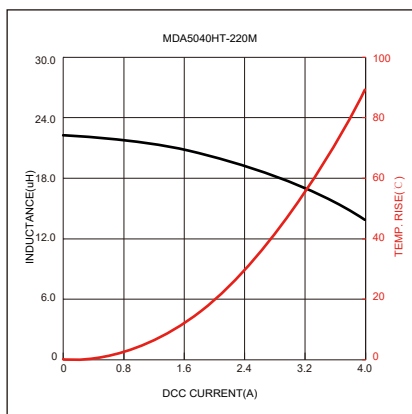
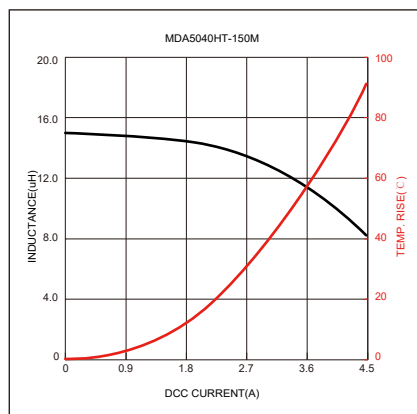
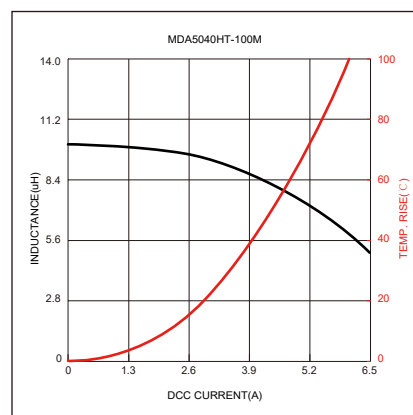
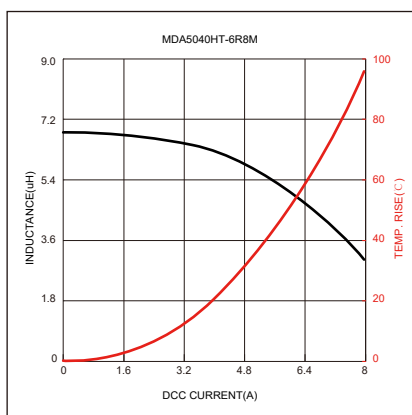
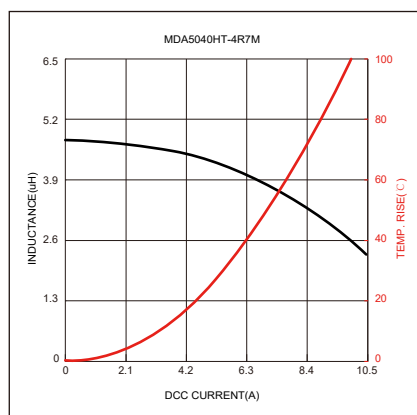
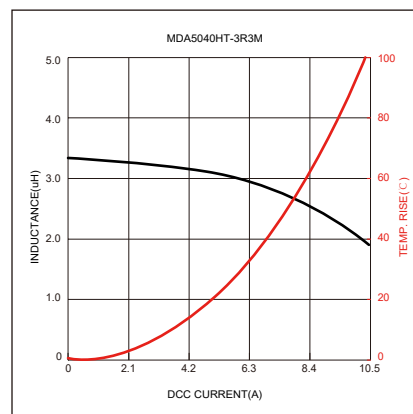
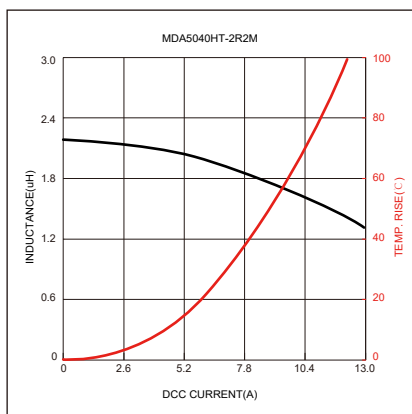
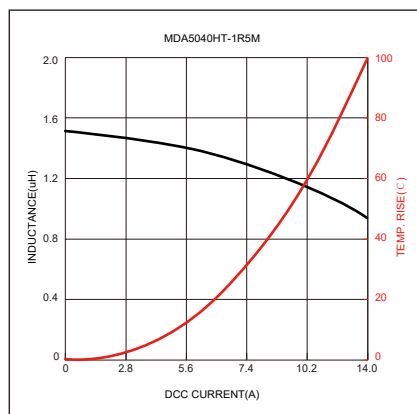
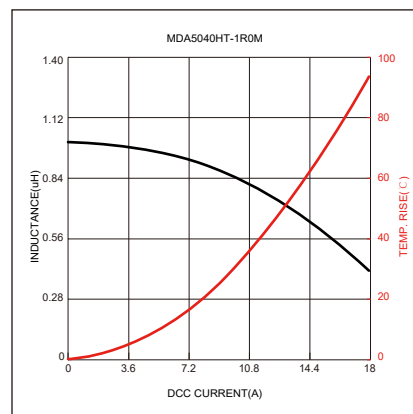
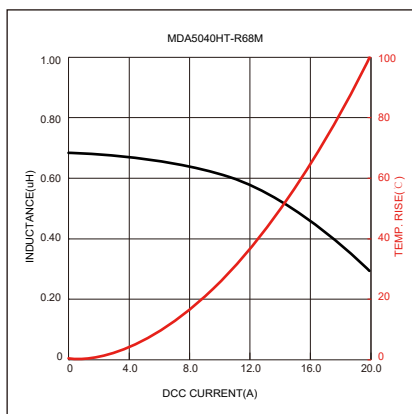
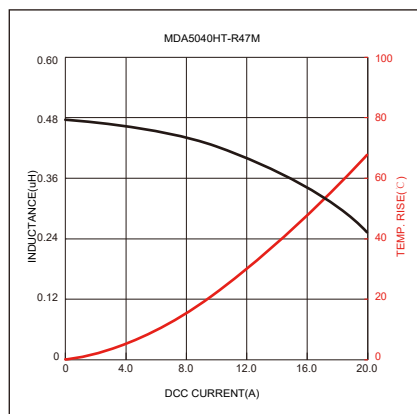
Electrical Properties:

Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDA5040HT-R47M	0.47	±20%	13.5	14.5	5.5	6.3
MDA5040HT-R68M	0.68	±20%	12.5	13.2	7.5	8.6
MDA5040HT-1R0M	1.00	±20%	11.5	11.2	9.8	11.3
MDA5040HT-1R5M	1.50	±20%	9.0	10.3	14.7	16.2
MDA5040HT-2R2M	2.20	±20%	7.8	9.3	21.8	24.0
MDA5040HT-3R3M	3.30	±20%	6.8	8.8	30.0	34.5
MDA5040HT-4R7M	4.70	±20%	6.1	7.2	35.6	39.2
MDA5040HT-6R8M	6.80	±20%	5.2	5.2	50.0	57.5
MDA5040HT-100M	10.0	±20%	4.0	5.2	82.0	92.0
MDA5040HT-150M	15.0	±20%	3.0	3.8	100	120
MDA5040HT-220M	22.0	±20%	2.7	3.0	170	187

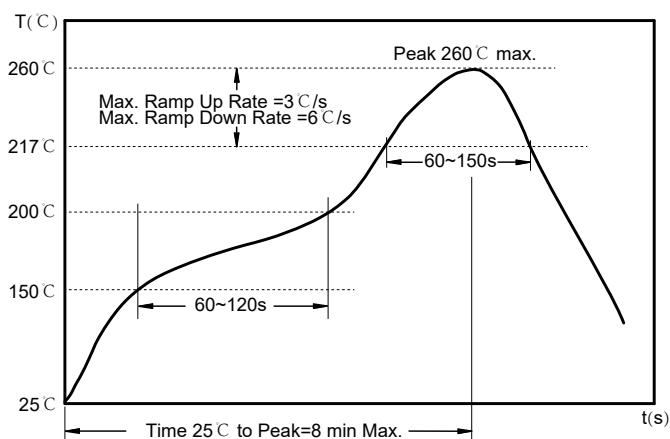
Saturation Current will cause L to drop approximately 35%

Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$

Typical Electrical Characteristics:



Soldering Reflow:



Preheat condition: 150 ~200 °C / 60~120 sec.

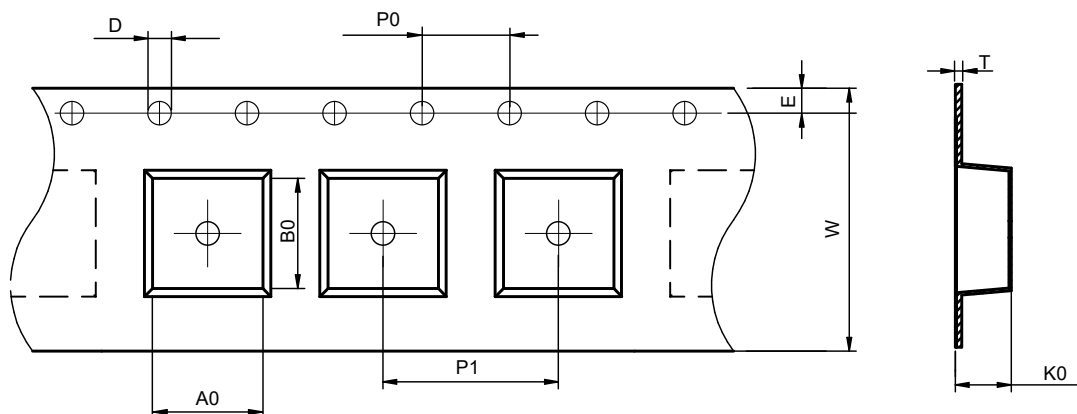
Allowed time above 217 °C : 60~150 sec.

Max temperature: 260 °C .

Allowed Reflow time: 3x max.

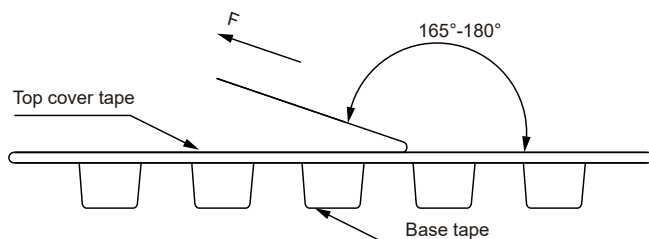
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA5040HT	5.6±0.1	6.2±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12±0.3	3.3±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:

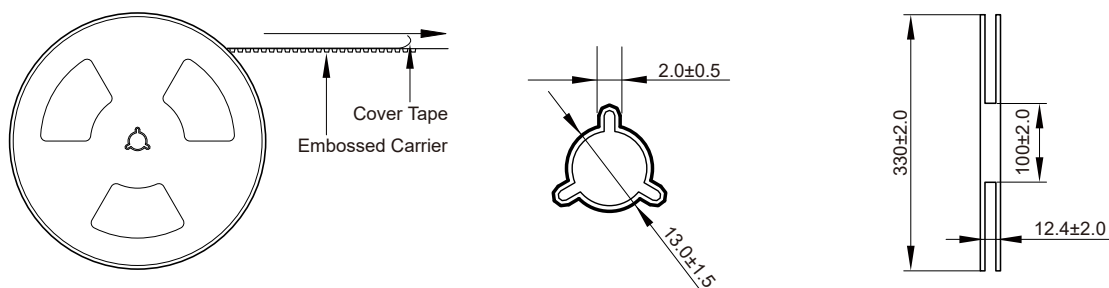


The peel force of top cover tape shall be between 0.1 to 1.3 N

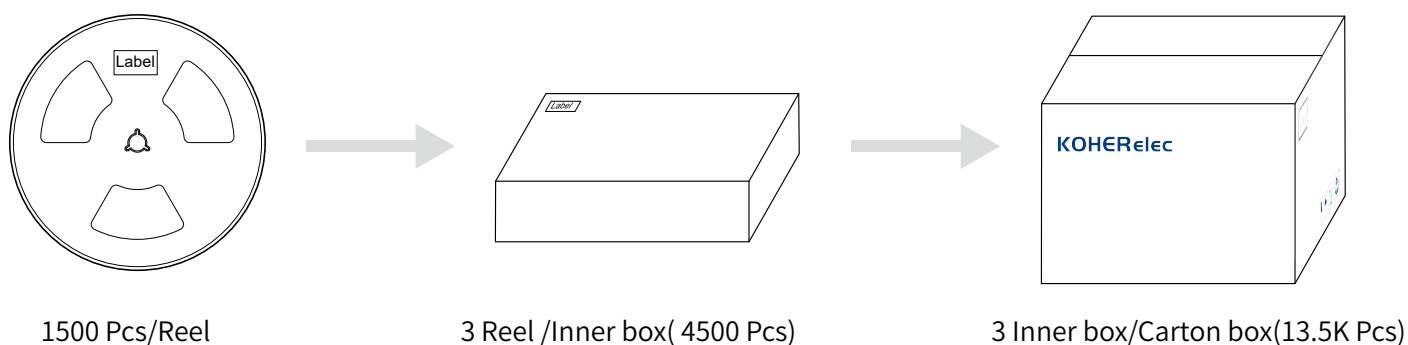
Product Marking:

Marking	Printing (Inductance+period)
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Reel Dimension: [mm]



Packaging Quantity:



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.