

MDA HT Series

SMD Moulded Inductor

Size 1040



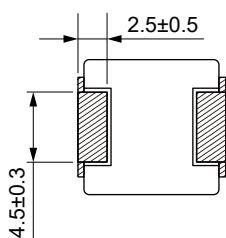
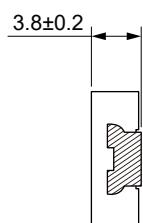
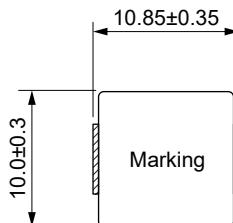
FEATURES

- High performance realized by metal dust core and hot pressing process.
- Ultra low buzz noise, due to composite construction.
- The wide pad design provides excellent anti-vibration capability.
- AEC-Q200 qualified.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 500PCS

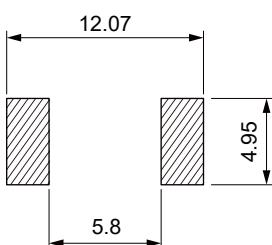
APPLICATION

- Thermal management products, such as water pumps and valves
- Headlamps, tail lamps and interior lighting
- HVAC

Dimensions: [mm]



Land Pattern: [mm]



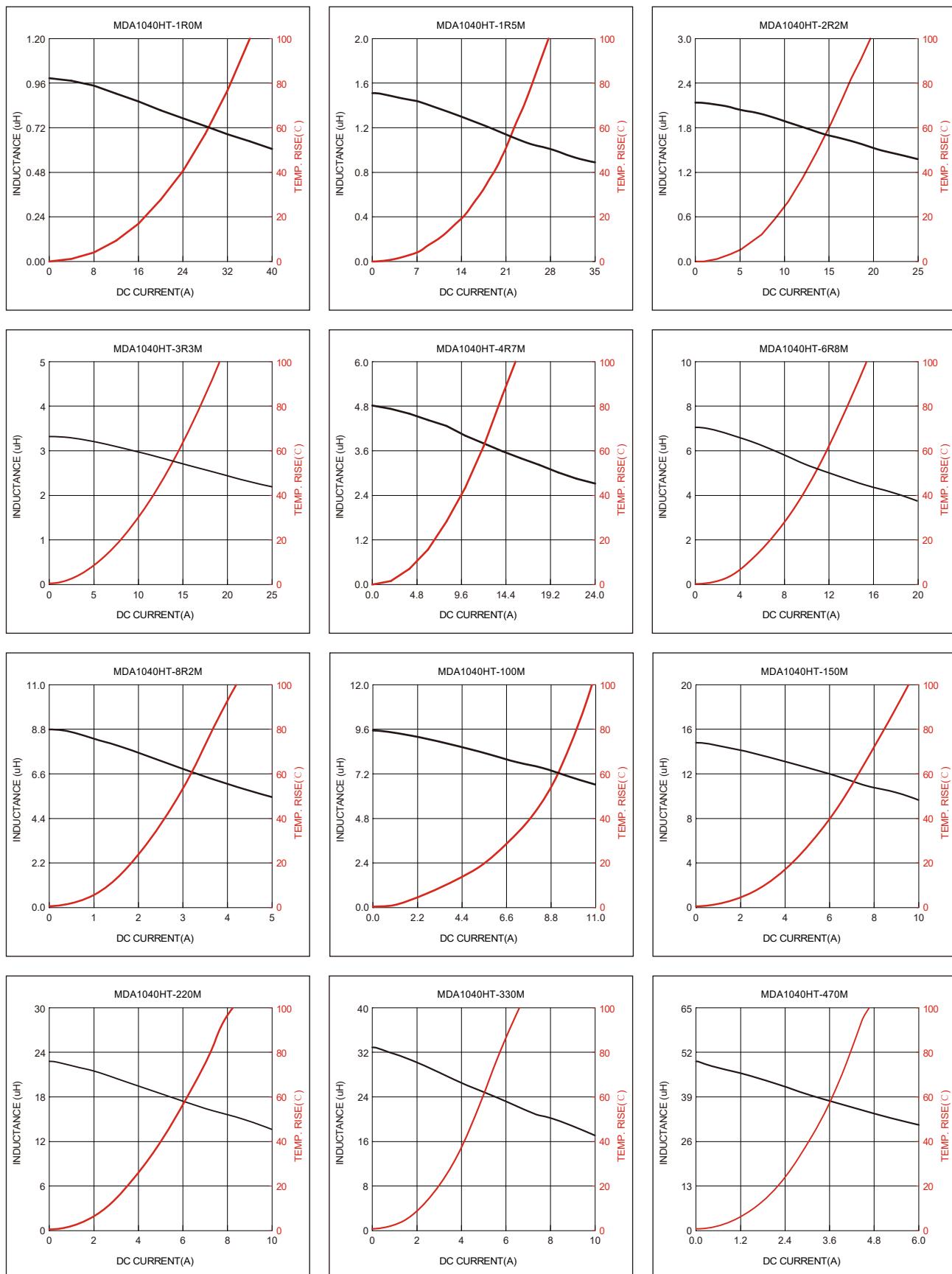
Electrical Properties:

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)
MDA1040HT-1R0M	1.00	±20%	23.7	21.3	20.4	17.5	3.10
MDA1040HT-1R5M	1.50	±20%	18.7	15.8	16.6	13.0	4.92
MDA1040HT-2R2M	2.20	±20%	12.3	11.1	13.9	11.9	8.76
MDA1040HT-3R3M	3.30	±20%	11.0	9.90	12.0	10.3	11.8
MDA1040HT-4R7M	4.70	±20%	9.80	8.80	11.0	9.40	15.0
MDA1040HT-6R8M	6.80	±20%	9.10	8.20	9.60	8.20	21.5
MDA1040HT-8R2M	8.20	±20%	7.70	6.90	7.10	6.10	29.0
MDA1040HT-100M	10.0	±20%	7.50	6.80	6.40	5.50	33.0
MDA1040HT-150M	15.0	±20%	6.00	5.40	5.40	4.60	49.0
MDA1040HT-220M	22.0	±20%	5.00	4.50	4.60	3.90	73.3
MDA1040HT-330M	33.0	±20%	4.00	3.60	4.20	3.50	102
MDA1040HT-470M	47.0	±20%	3.00	2.70	3.20	2.70	178

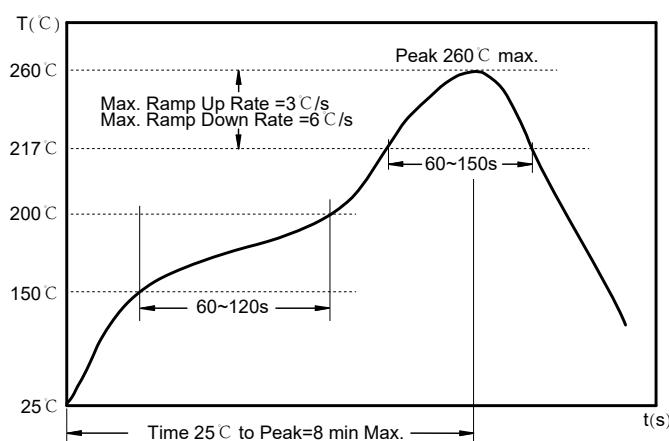
Saturation Current will cause L to drop approximately 20%

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

Typical Electrical Characteristics:



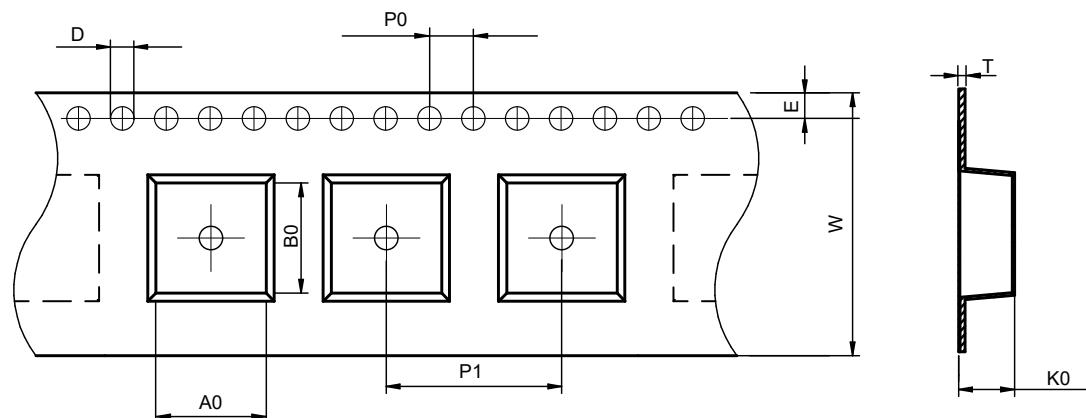
Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.
 Allowed time above 217°C: 60~150 sec.
 Max temperature: 260°C.
 Max time at max temperature: 30 sec.
 Allowed Reflow time: 2x max.

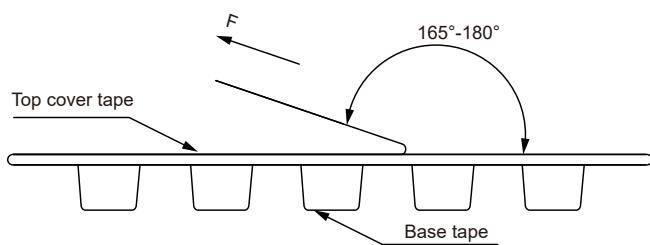
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1040HT	10.5±0.1	11.7±0.1	1.5±0.1	4.0±0.1	16.0±0.1	24±0.3	4.4±0.1	1.75±0.1	0.40±0.05

Peel force of top cover tape:

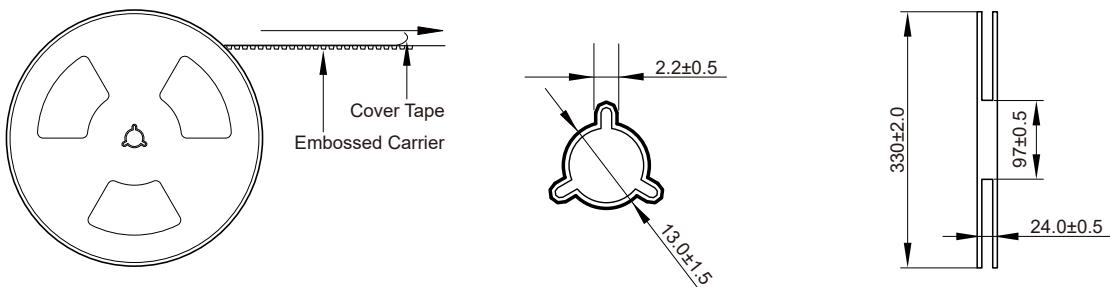


The peel force of top cover tape shall be between 0.1 to 1.3 N

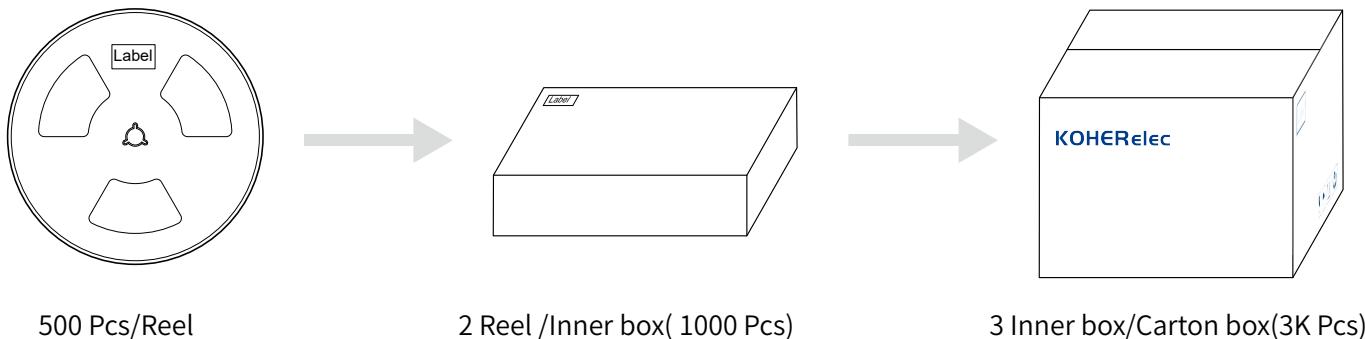
Product Marking:

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



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.