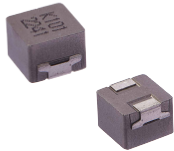


**MDA HT Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 7054**



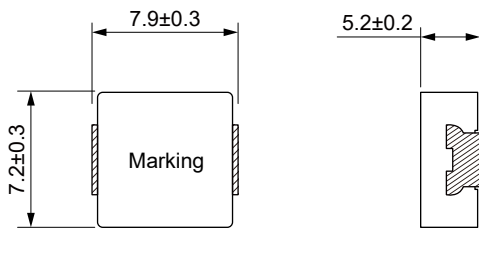
**FEATURES**

- 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

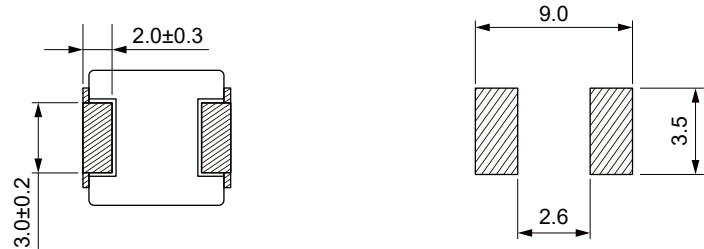
**APPLICATION**

- 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]**



**Electrical Properties:**

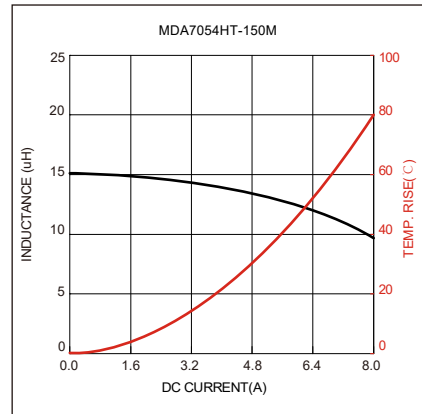
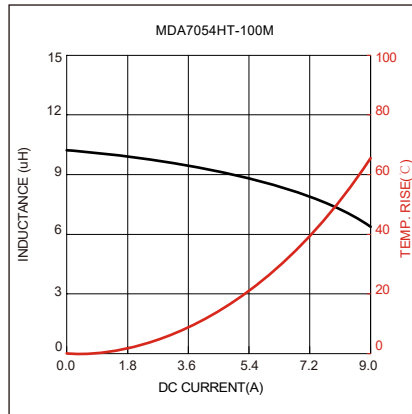
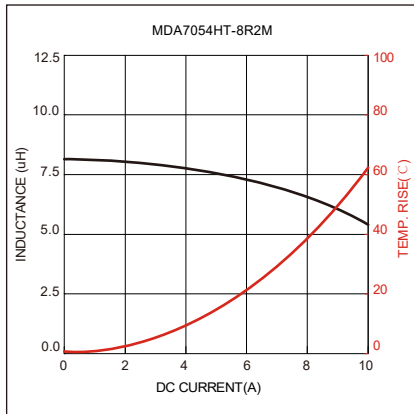
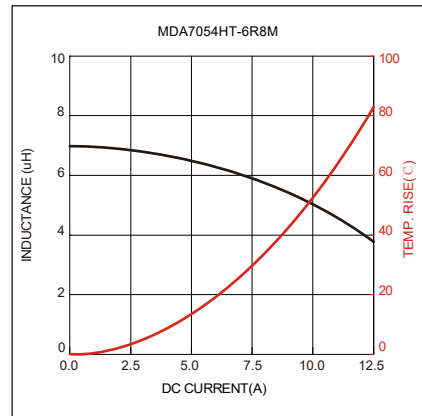
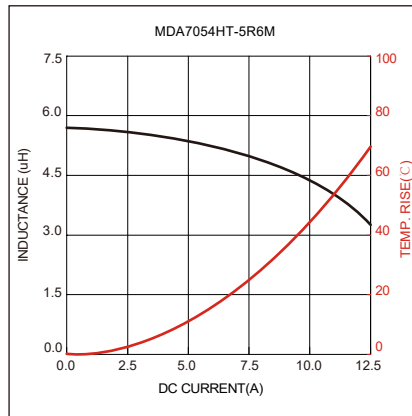
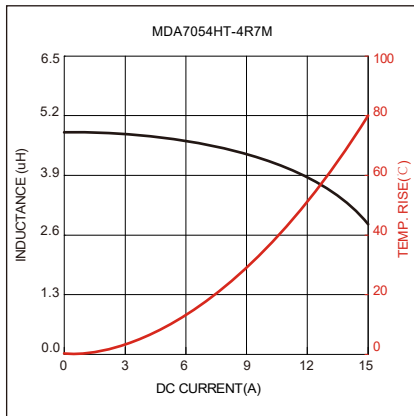
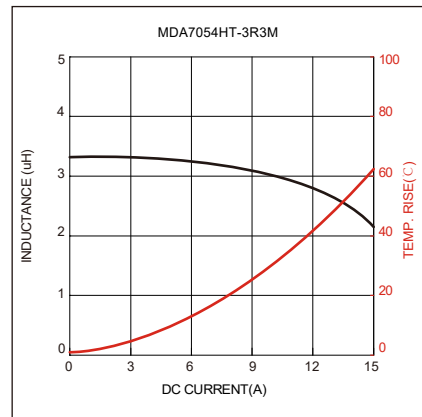
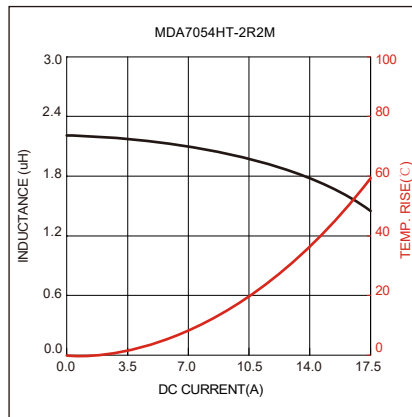
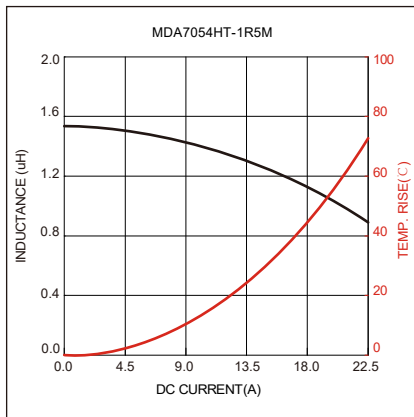
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDA7054HT-1R5M	1.50	±20%	11.5	10.3	16.4	14.0	6.30	7.30
MDA7054HT-2R2M	2.20	±20%	9.80	8.70	15.0	12.7	9.90	11.4
MDA7054HT-3R3M	3.30	±20%	8.00	7.20	13.5	11.6	13.4	15.4
MDA7054HT-4R7M	4.70	±20%	7.00	6.30	13.2	11.2	18.2	20.9
MDA7054HT-5R6M	5.60	±20%	6.50	5.60	10.6	9.20	20.0	24.0
MDA7054HT-6R8M	6.80	±20%	6.20	5.50	10.2	8.70	23.1	26.6
MDA7054HT-8R2M	8.20	±20%	5.80	5.00	9.20	7.70	27.8	31.9
MDA7054HT-100M	10.0	±20%	5.20	4.70	8.10	6.90	33.0	38.0
MDA7054HT-150M	15.0	±20%	3.80	3.40	7.00	5.90	60.0	66.0
MDA7054HT-220M	22.0	±20%	3.30	3.00	6.30	5.40	85.0	93.5

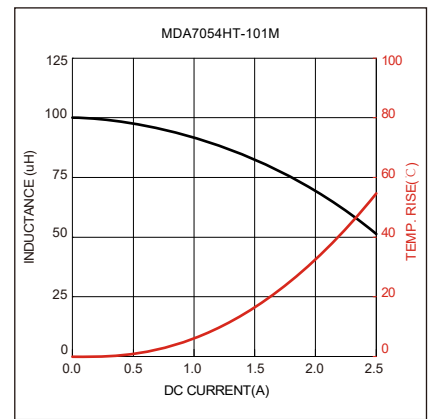
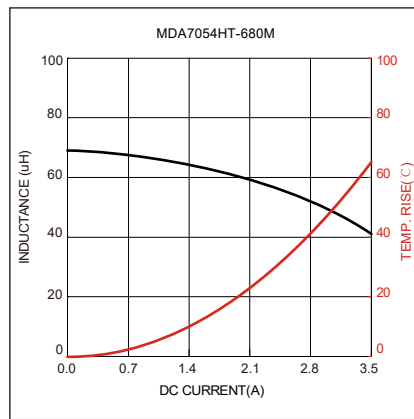
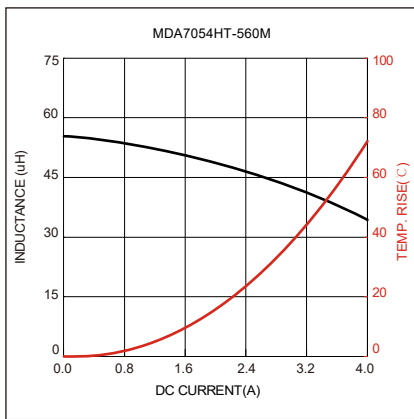
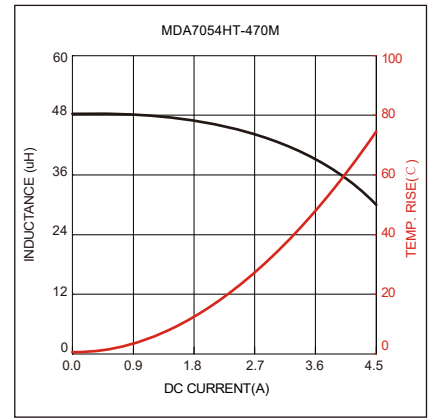
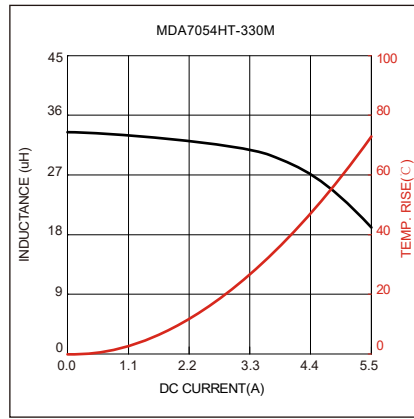
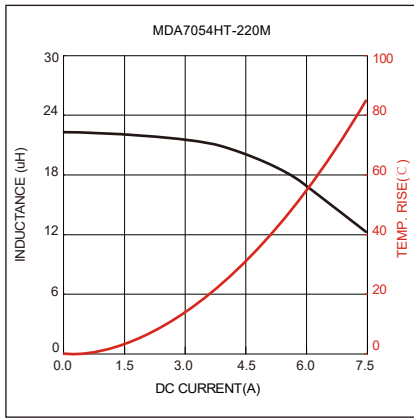
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDA7054HT-330M	33.0	±20%	3.20	2.80	4.90	4.20	111.0	127.6
MDA7054HT-470M	47.0	±20%	2.50	2.20	4.20	3.50	156.0	171.6
MDA7054HT-560M	56.0	±20%	2.20	2.00	3.30	2.80	190.5	209.3
MDA7054HT-680M	68.0	±20%	2.00	1.80	2.80	2.40	222.0	255.0
MDA7054HT-101M	100	±20%	1.80	1.60	2.40	2.00	303.0	348.0

Saturation Current will cause L to drop approximately 30%

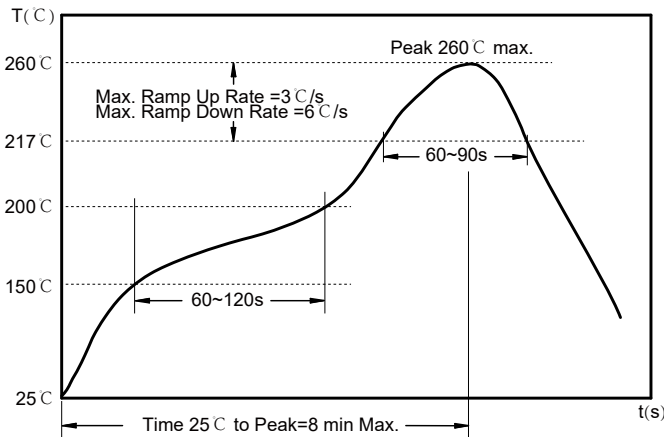
Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

### Typical Electrical Characteristics:





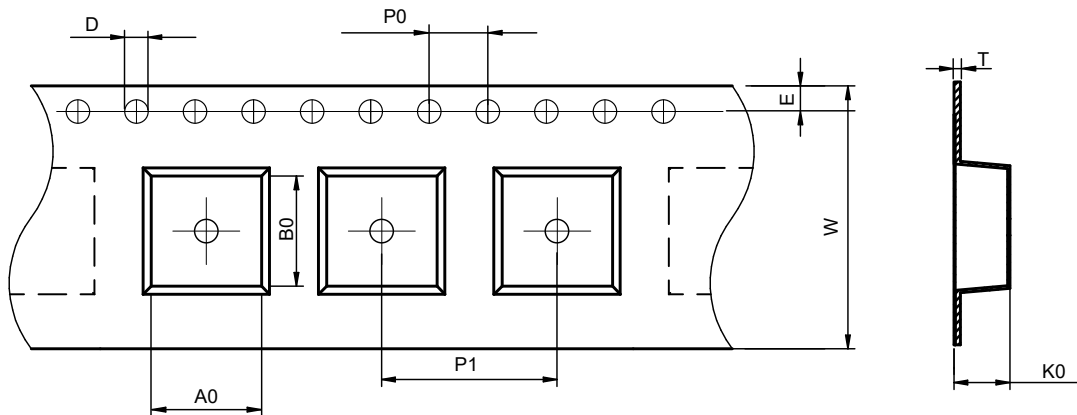
### Soldering Reflow:



Preheat condition: 150 ~200 °C / 60~120 sec.  
 Allowed time above 217 °C : 60~90 sec.  
 Max temperature: 260 °C .  
 Max time at max temperature: 10 sec.  
 Allowed Reflow time: 2x max.

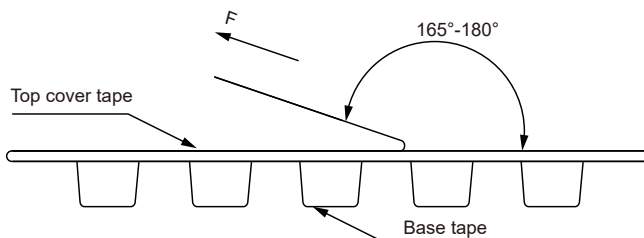
### Packaging Information:

#### Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA7054HT	7.6±0.1	8.1±0.1	1.55±0.1	4.0±0.1	12.0±0.1	16.0±0.3	5.7±0.1	1.75±0.1	0.40±0.05

#### Peel force of top cover tape:

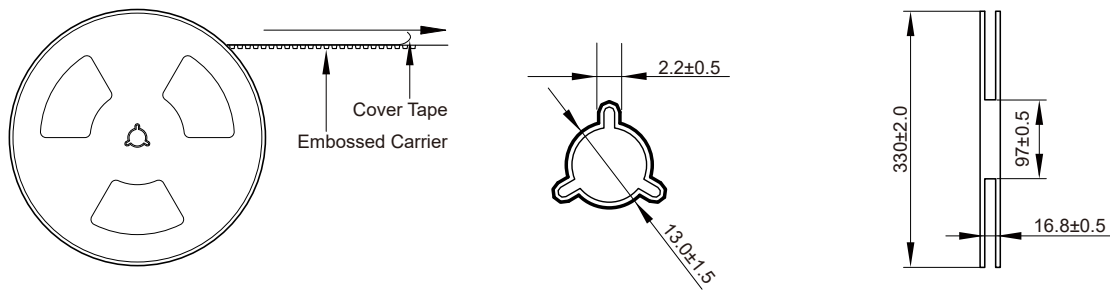


The peel force of top cover tape shall be between 0.1 to 1.3 N

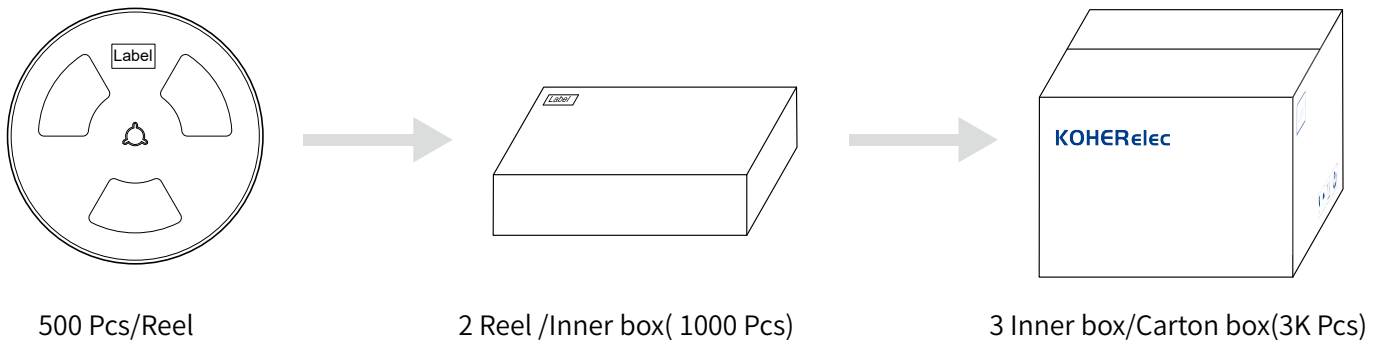
#### Product Marking:

Marking	K+Printing (Inductance)
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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.