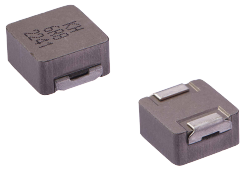
MDA HT Series

SMD Low Profile High Current Molded Inductor

Size 1054



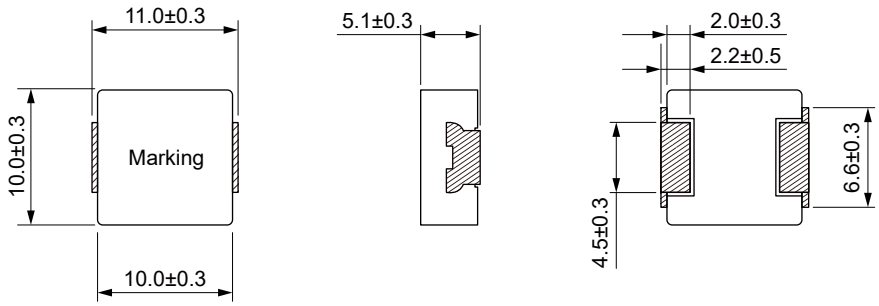
FEATURES

- 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

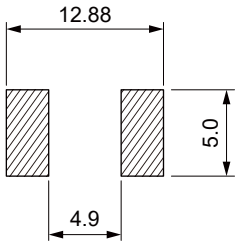
APPLICATION

- 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)
MDA1054HT-R68M	0.68	±20%	32.0	28.8	46.0	39.4	1.80	2.22
MDA1054HT-1R0M	1.00	±20%	30.0	27.0	37.0	31.7	2.30	2.76
MDA1054HT-1R5M	1.50	±20%	25.0	22.3	27.0	23.0	3.60	4.20
MDA1054HT-2R2M	2.20	±20%	23.0	20.7	25.0	21.4	4.10	4.90
MDA1054HT-3R3M	3.30	±20%	18.7	16.8	19.0	16.3	6.20	7.40
MDA1054HT-4R7M	4.70	±20%	14.5	13.0	15.7	13.5	9.00	10.0
MDA1054HT-6R8M	6.80	±20%	12.3	10.8	13.3	11.4	12.4	14.0
MDA1054HT-100M	10.0	±20%	9.00	7.80	12.8	10.9	22.0	24.2
MDA1054HT-150M	15.0	±20%	7.60	6.80	9.20	7.90	27.3	31.3

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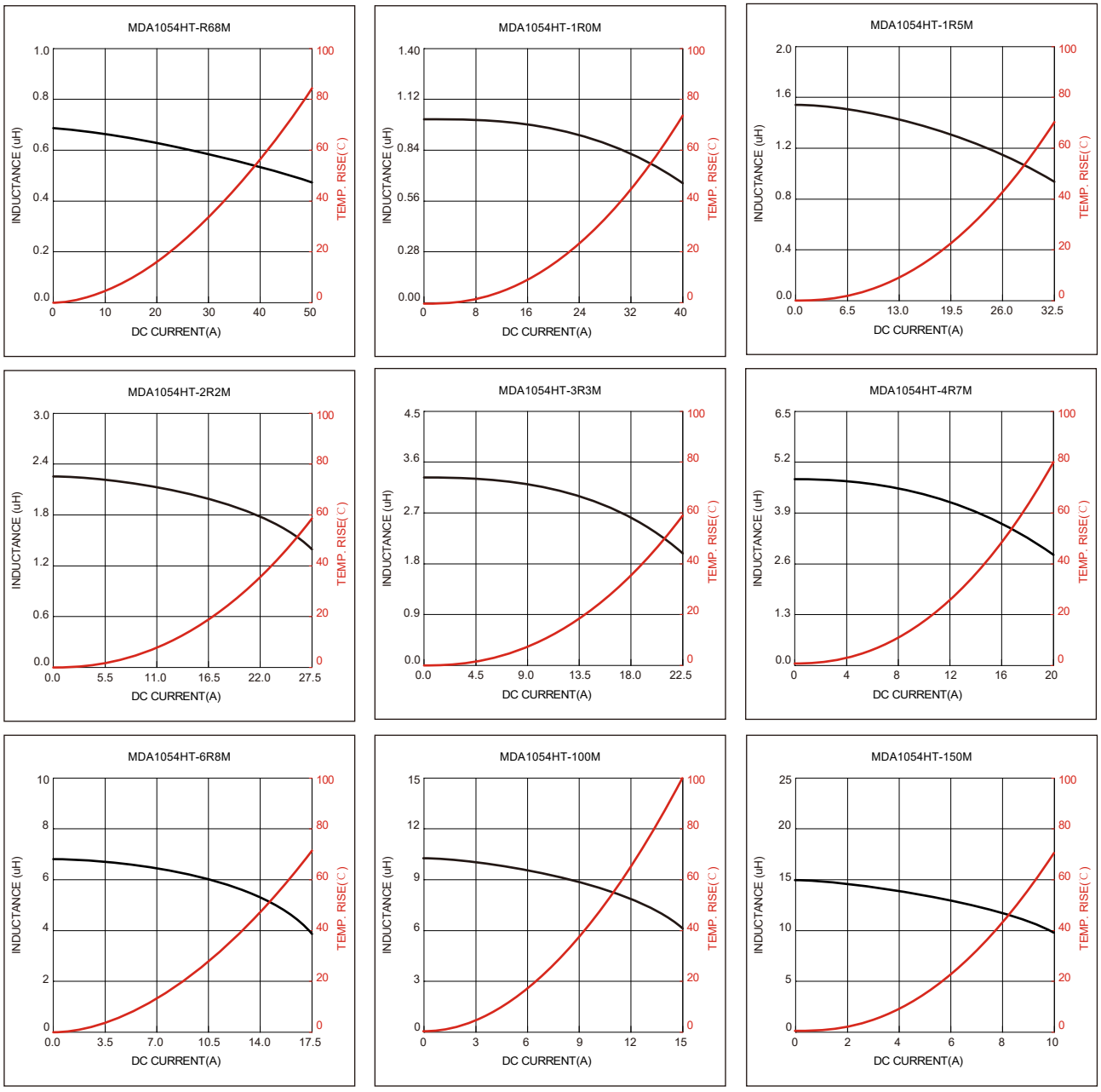
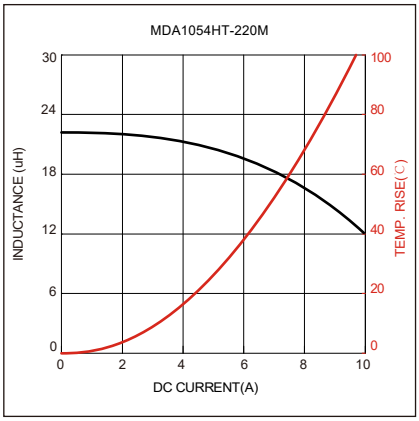
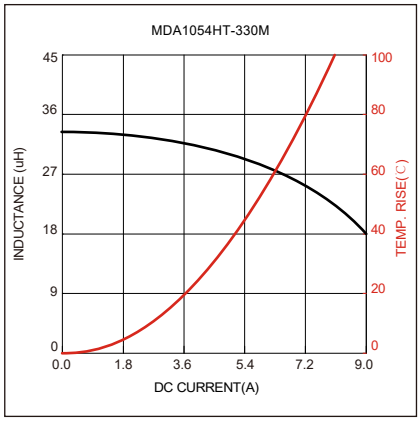
MDA1054HT-220M	22.0	±20%	6.00	5.40	8.80	7.50	43.5	50.0
MDA1054HT-330M	33.0	±20%	4.80	4.30	7.60	6.50	66.0	75.3
MDA1054HT-470M	47.0	±20%	4.20	3.60	4.90	4.20	89.0	103

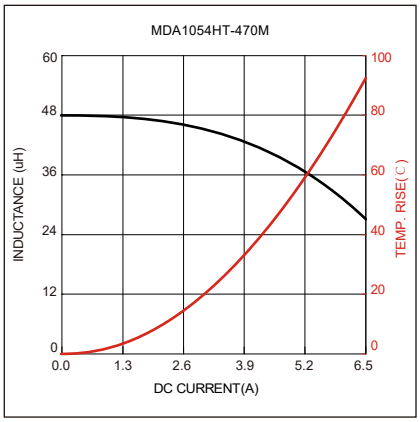
Saturation Current will cause L to drop approximately 30%.
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

Typical Electrical Characteristics:

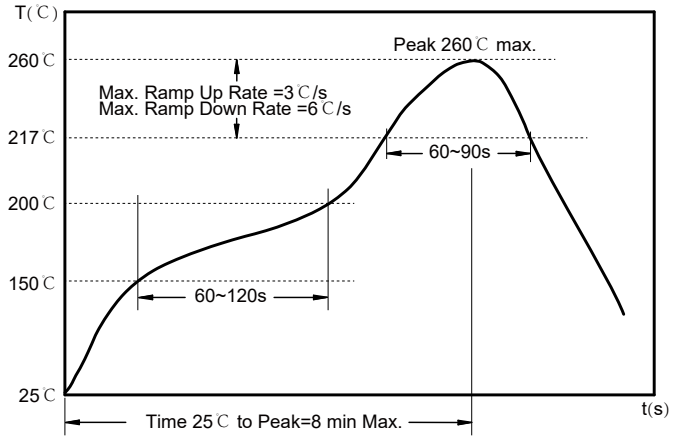



MDA1054HT-220M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0
6
12
18
24
30
0
20
40
60
80
100
0
2
4
6
8
10


MDA1054HT-330M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0
9
18
27
36
45
0
20
40
60
80
100
0.0
1.8
3.6
5.4
7.2
9.0


MDA1054HT-470M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0
12
24
36
48
60
0
20
40
60
80
100
0.0
1.3
2.6
3.9
5.2
6.5

Soldering Reflow:



Preheat condition: 150 ~200℃/ 60~120 sec.

Allowed time above 217℃: 60~90 sec.

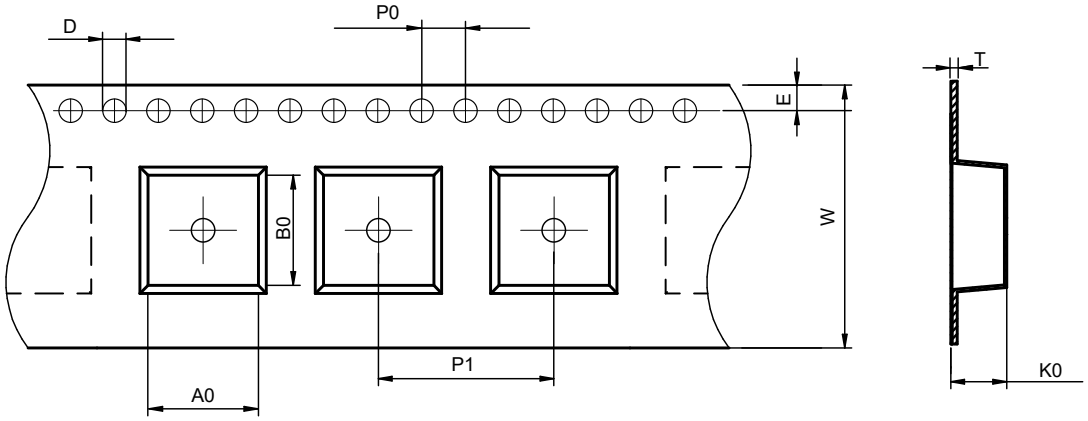
Max temperature: 260℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

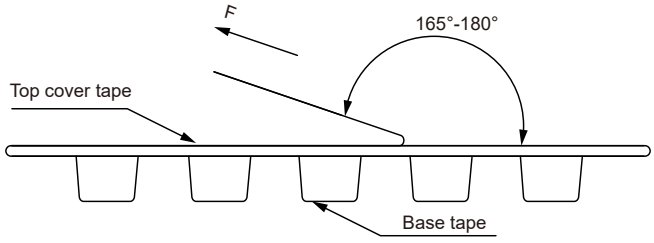
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1054HT	10.4±0.1	11.6±0.1	1.5±0.1	4.0±0.1	16±0.1	24±0.3	5.7±0.1	1.75±0.1	0.40±0.05

Peel force of top cover tape:

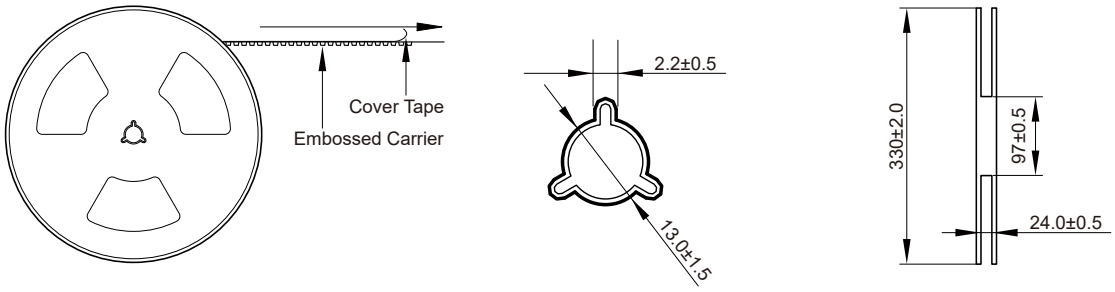


The peel force of top cover tape shall be between 0.1 to 1.3 N

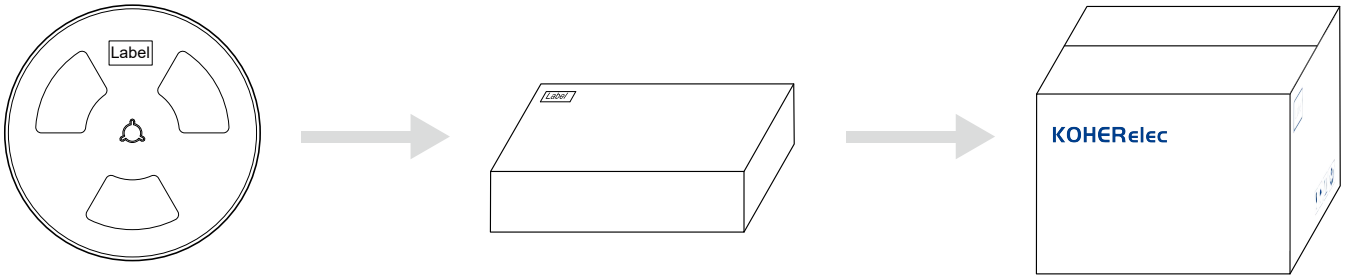
Product Marking:

Marking	KH+Printing(Inductance)

Reel Dimension：[mm]



Packaging Quantity:



500 Pcs/Reel

2 Reel /Inner box(1000 Pcs)

3 Inner box/Carton box(3K Pcs)

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.