MDA HT Series

SMD Low Profile High Current Molded Inductor

Size 6045

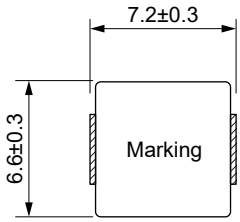
FEATURES

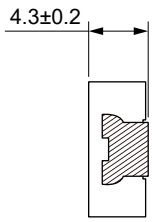
- Low loss realized with low DCR.
- Ultra low buzz noise, due to composite construction .
- 100% Lead(Pb)-Free and RoHS compliant.
- High performance (Isat) realized by metal dust core.
- AEC-Q200 qualified.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 1000PCS

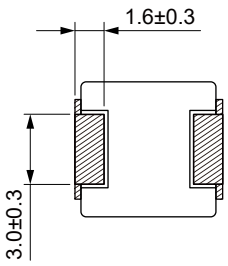
APPLICATION

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

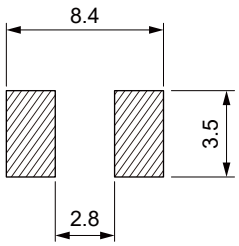
Dimensions: [mm]







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)	Rated Voltage (V)
MDA6045HT-R22M	0.22	±20%	22.2	20.0	57.2	49.0	2.00	2.40	70
MDA6045HT-R47M	0.47	±20%	18.1	16.3	25.0	21.0	3.00	3.60	70
MDA6045HT-1R0M	1.0	±20%	13.3	12.0	23.9	16.5	5.20	6.20	70
MDA6045HT-1R5M	1.5	±20%	11.6	10.4	19.7	15.0	6.70	8.10	70
MDA6045HT-2R2M	2.2	±20%	9.80	8.80	19.4	14.0	9.50	11.4	70
MDA6045HT-3R3M	3.3	±20%	7.60	6.80	17.7	13.5	15.7	18.8	70
MDA6045HT-4R7M	4.7	±20%	6.70	6.10	14.8	11.2	20.2	24.2	70
MDA6045HT-6R8M	6.8	±20%	5.20	4.70	12.1	10.1	33.0	39.6	70
MDA6045HT-8R2M	8.2	±20%	5.00	4.50	10.2	8.80	40.0	48.0	70
MDA6045HT-100M	10	±20%	4.30	3.90	9.60	8.20	47.9	57.5	70

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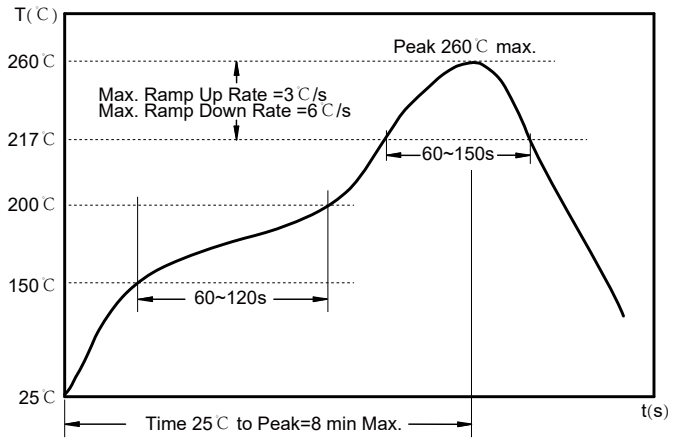
MDA6045HT-150M	15	±20%	3.70	3.40	6.20	5.30	66.0	79.2	70
MDA6045HT-220M	22	±20%	3.20	2.90	5.20	4.10	86.7	104	70
MDA6045HT-330M	33	±20%	2.70	2.40	4.40	3.50	121	145.2	70
MDA6045HT-470M	47	±20%	2.30	2.10	4.20	3.30	195	212	70
MDA6045HT-680M	68	±20%	1.80	1.60	3.90	3.00	312	374	70
MDA6045HT-101M	100	±20%	1.50	1.35	2.40	2.10	413	496	70

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

Soldering Reflow:



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

Allowed time above 217℃: 60~150 sec.

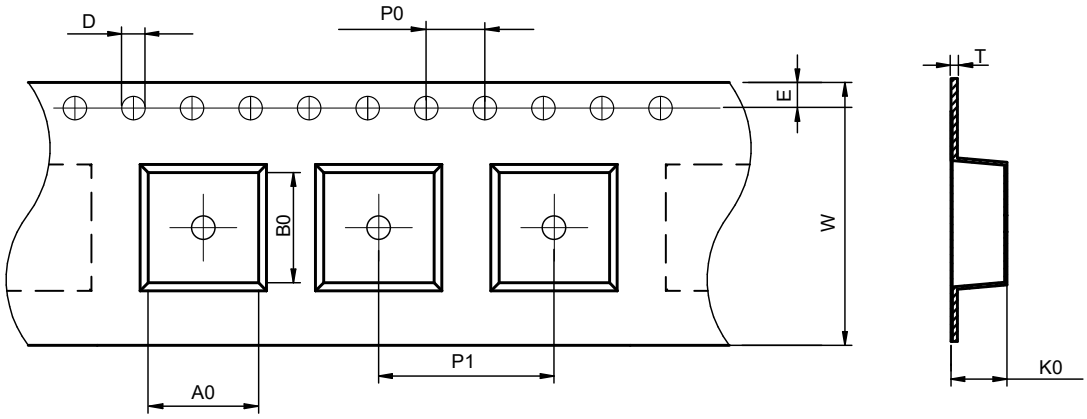
Max temperature: 260℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

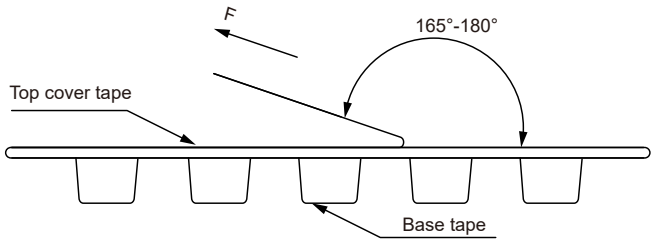
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA6045HT	7.0±0.1	7.7±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	4.9±0.1	1.75±0.1	0.40±0.05

Peel force of top cover tape:

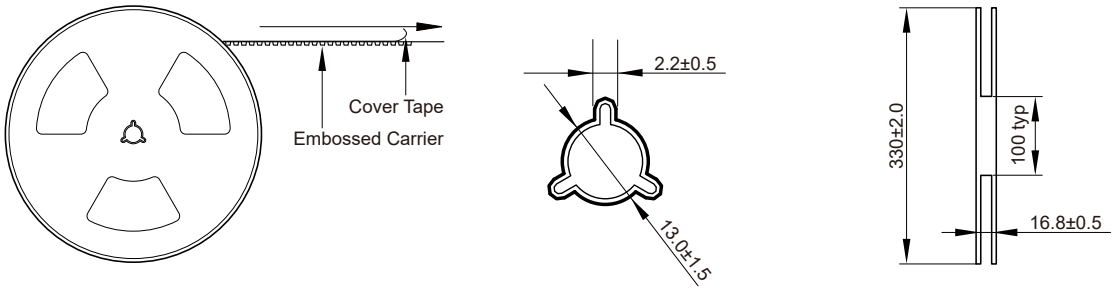


The peel force of top cover tape shall be between 0.1 to 1.3 N

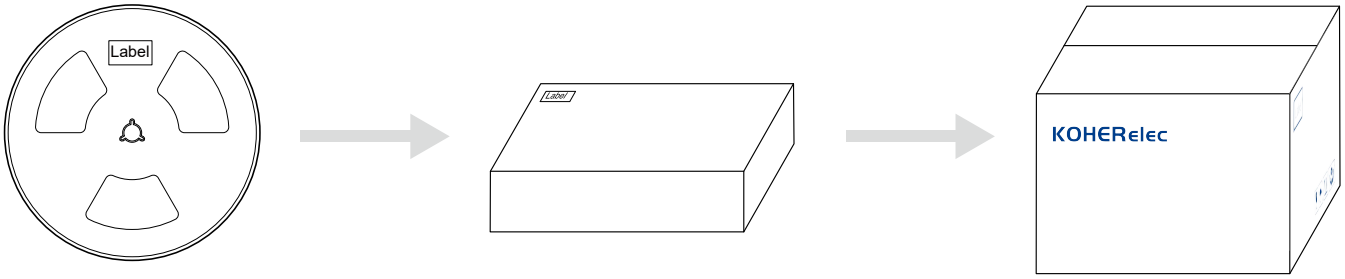
Product Marking:

Marking	K+Printing (Inductance+period)

Reel Dimension：[mm]



Packaging Quantity:



1000 Pcs/Reel

2 Reel /Inner box(2000 Pcs)

3 Inner box/Carton box(6K 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.