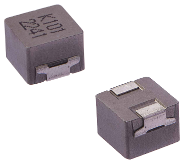
MDA HT Series

SMD Low Profile High Current Molded Inductor
Size 7030



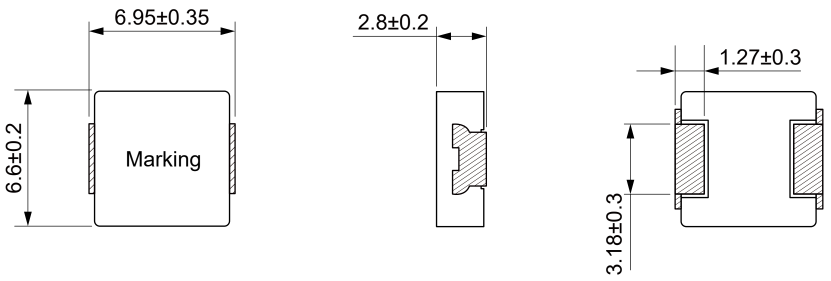
FEATURES

- 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: 1000PCS

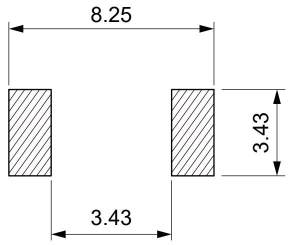
APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]

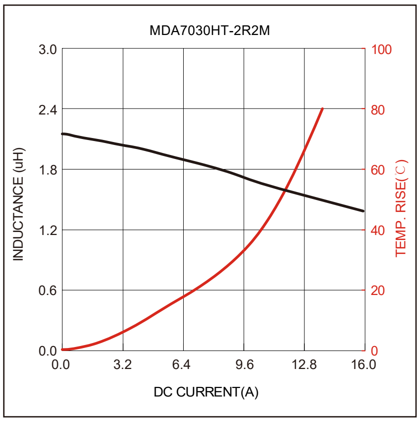


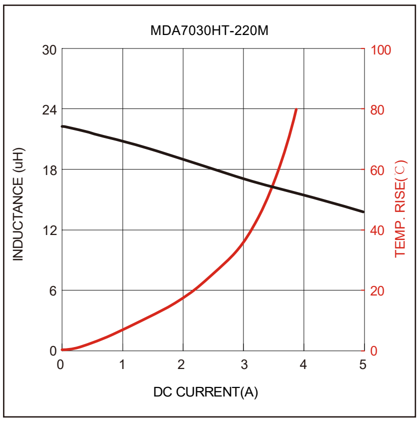
Electrical Properties:

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)
MDA7030HT-R47M	0.47	±20%	17.0	15.3	16.3	14.0	4.62
MDA7030HT-R68M	0.68	±20%	16.5	14.1	13.0	11.0	5.30
MDA7030HT-1R0M	1.00	±20%	13.0	11.7	13.0	11.1	7.80
MDA7030HT-1R5M	1.50	±20%	10.6	9.5	11.6	9.9	12.5
MDA7030HT-2R2M	2.20	±20%	9.0	8.1	8.0	6.9	16.5
MDA7030HT-3R3M	3.30	±20%	7.5	6.8	8.3	7.1	26.0
MDA7030HT-4R7M	4.70	±20%	6.0	5.4	6.0	5.1	33.4
MDA7030HT-6R8M	6.80	±20%	5.5	5.0	4.5	3.9	46.8
MDA7030HT-100M	10.0	±20%	4.0	3.6	3.5	3.0	70.5
MDA7030HT-150M	15.0	±20%	3.2	2.9	2.8	2.4	110
MDA7030HT-220M	22.0	±20%	2.8	2.5	2.4	2.1	174

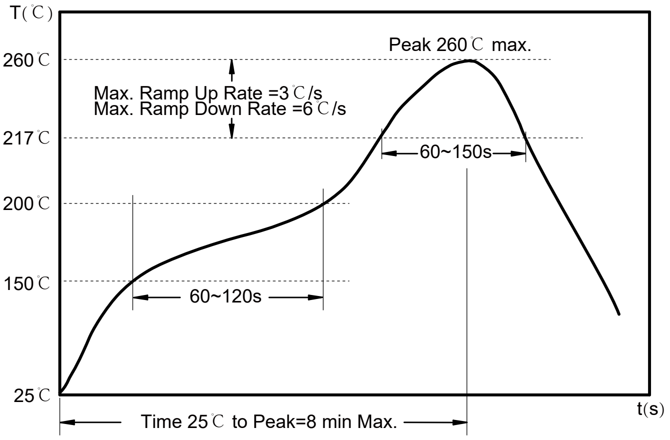
Saturation Current will cause L to drop approximately 20%.
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

Typical Electrical Characteristics:





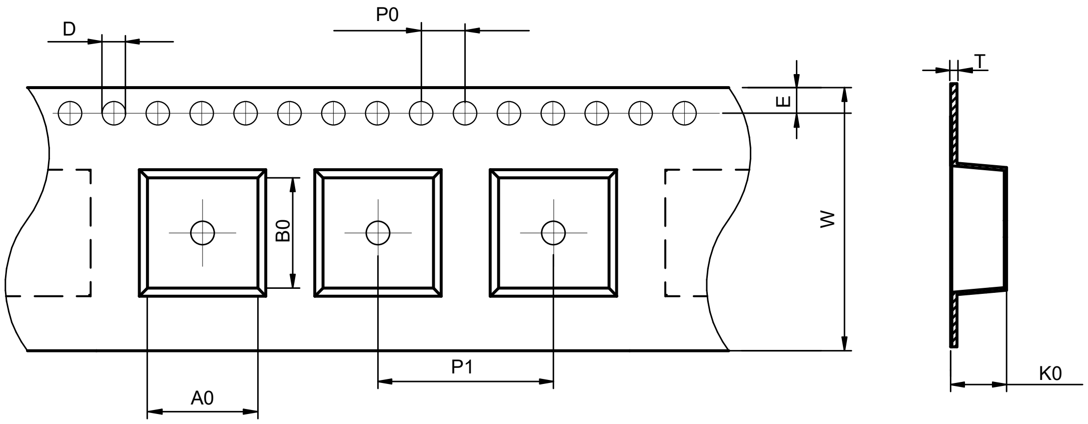
Soldering Reflow:



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

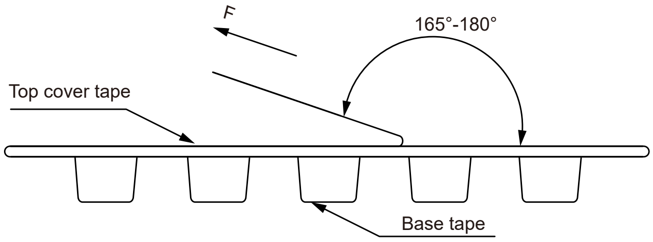
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA7030HT	7.0±0.1	7.7±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	3.4±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:

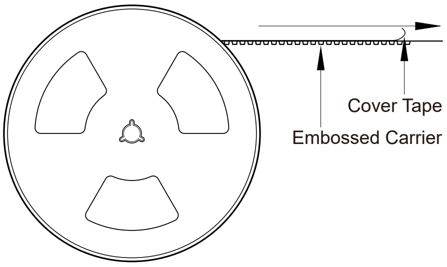


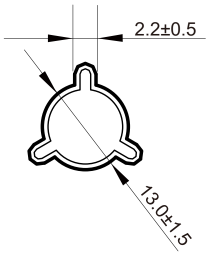
The peel force of top cover tape shall be between 0.1 to 1.3 N

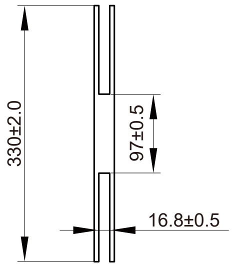
Product Marking:

Marking	K+Printing (Inductance+period)

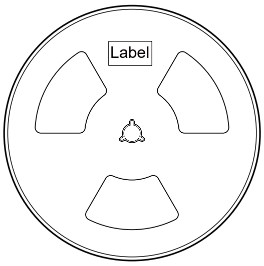
Reel Dimension： [mm]



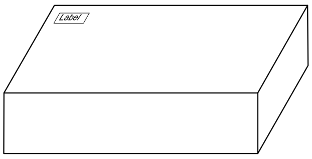




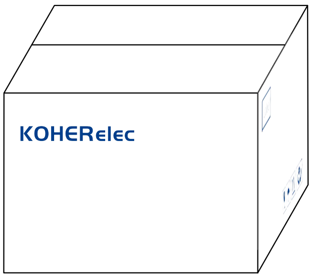
Packaging Quantity:



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.