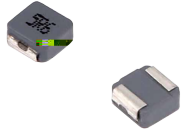


MDA HT Series

SMD Low Profile High Current Molded Inductor

Size 4020



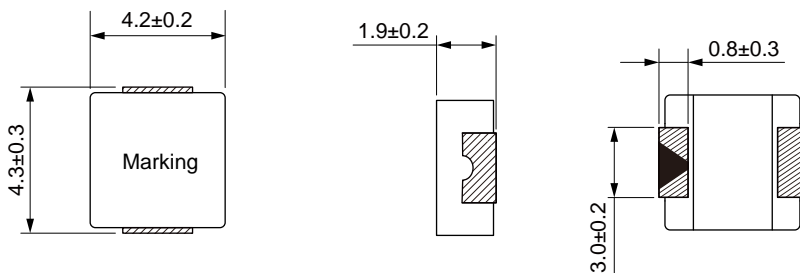
FEATURES

- 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: 3000PCS

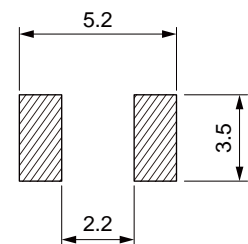
APPLICATION

- 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:

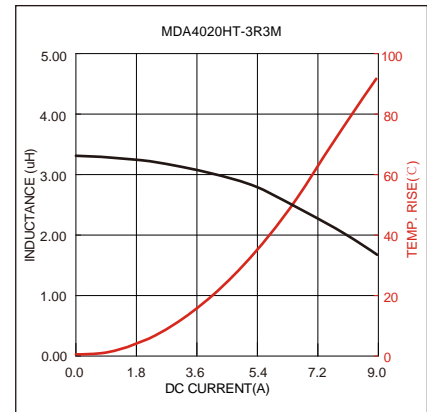
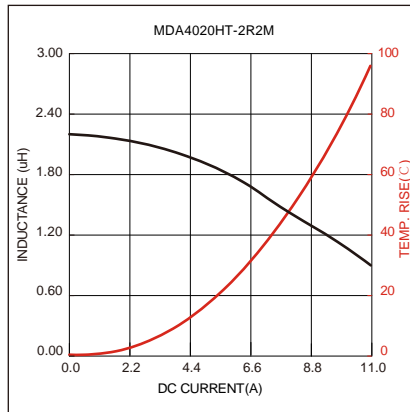
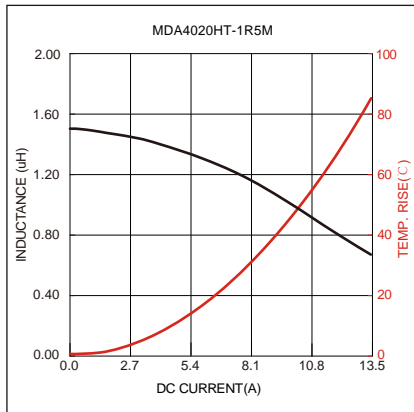
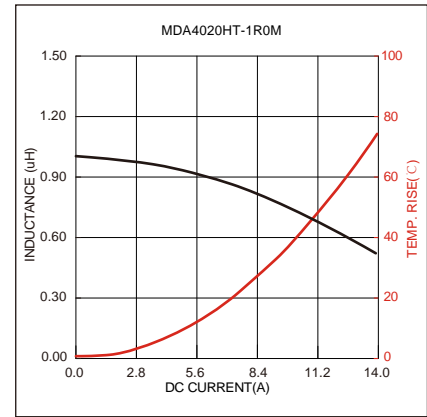
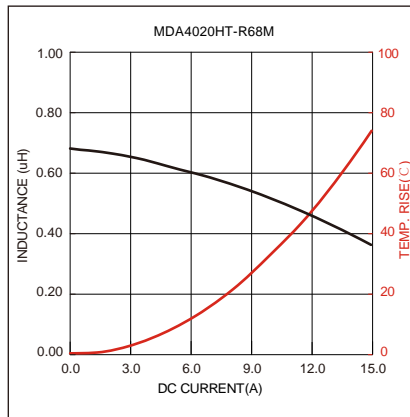
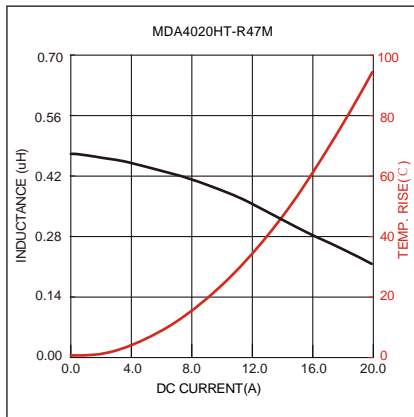
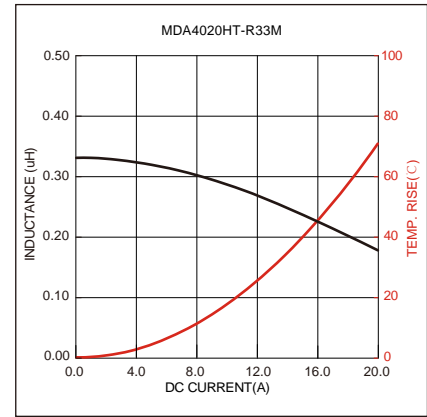
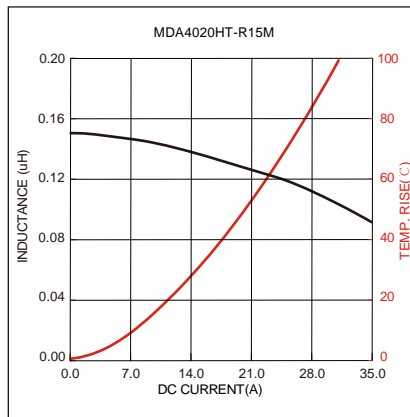
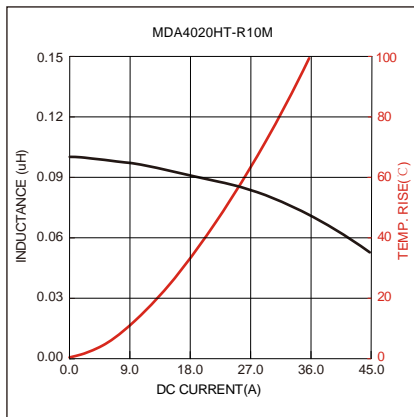
	(μH)		(A)	(A)	Saturation (A)	Saturation (A)	(m ²)	(m ²)
MDA4020HT-R10M	0.10	±20%	19.0	18.0	32.2	32.0	1.9	2.3
MDA4020HT-R15M	0.15	±20%	16.5	15.0	26.2	26.0	3.1	3.8
MDA4020HT-R33M	0.33	±20%	15.0	13.0	13.3	13.0	5.0	5.8
MDA4020HT-R47M	0.47	±20%	13.0	11.0	11.3	11.0	6.0	7.2
MDA4020HT-R68M	0.68	±20%	11.0	10.0	10.2	10.0	8.2	9.9
MDA4020HT-1R0M	1.00	±20%	10.0	9.5	10.0	9.5	11.5	13.8
MDA4020HT-1R5M	1.50	±20%	9.0	8.0	9.0	8.0	15.4	18.5
MDA4020HT-2R2M	2.20	±20%	7.2	6.5	6.4	6.2	25.0	30.0
MDA4020HT-3R3M	3.30	±20%	5.5	5.0	6.3	6.2	41.0	49.2

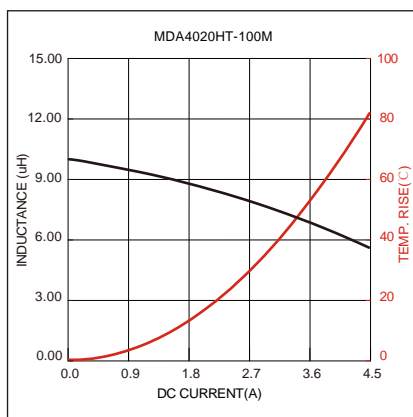
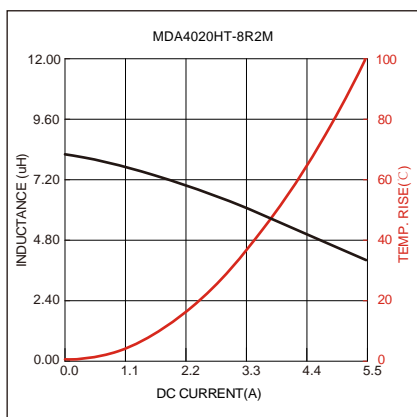
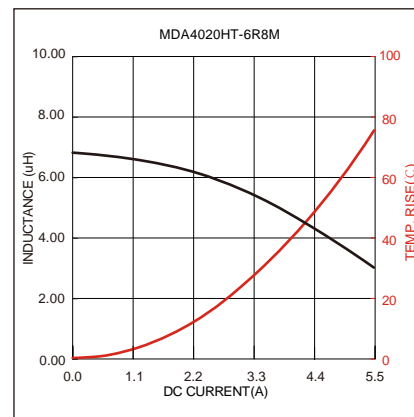
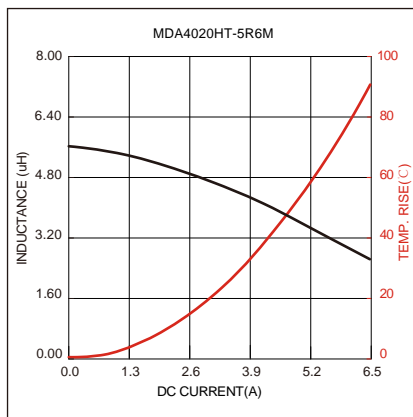
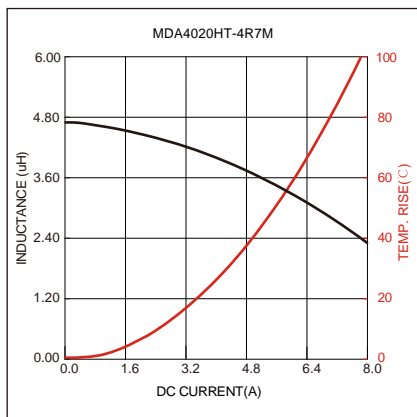
	(μH)		(A)	(A)	Satura on (A)	Satura on (A)	(m)	(m)
MDA4020HT-4R7M	4.70	$\pm 20\%$	4.7	4.1	5.3	5.2	60.0	69.0
MDA4020HT-5R6M	5.60	$\pm 20\%$	4.1	3.5	4.3	3.7	68.0	78.2
MDA4020HT-6R8M	6.80	$\pm 20\%$	3.8	3.3	3.9	3.4	80.5	92.5
MDA4020HT-8R2M	8.20	$\pm 20\%$	3.3	3.0	3.5	3.1	105.0	121.0
MDA4020HT-100M	10.0	$\pm 20\%$	3.1	2.9	3.3	3.0	126.0	145.0

Satura on Current will cause L to drop approximately 35%.

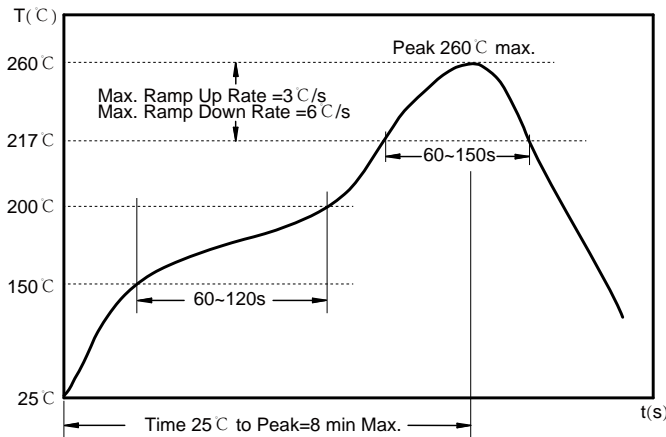
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^\circ\text{C}$

Typical Electrical Characteristics:





Soldering Reflow:



Preheat condition: 150 ~200 °C / 60~120 sec.

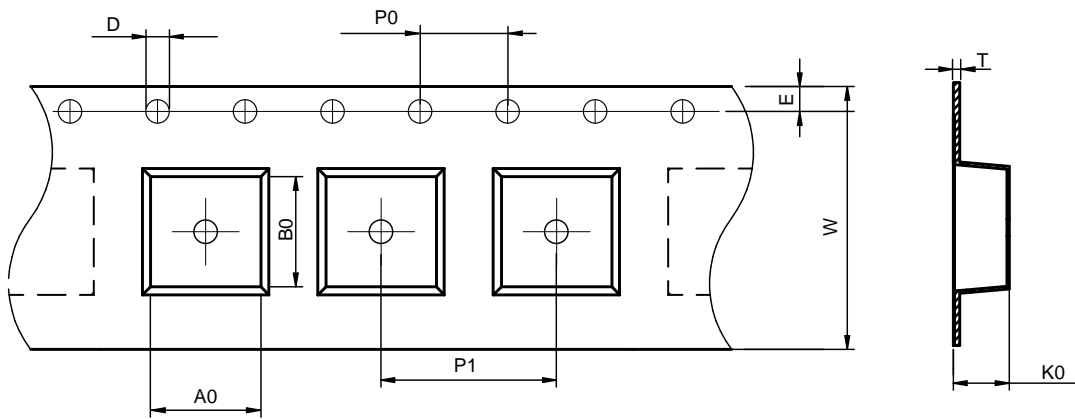
Allowed time above 217 °C : 60~150 sec.

Max temperature: 260 °C .

Allowed Reflow time: 3x max.

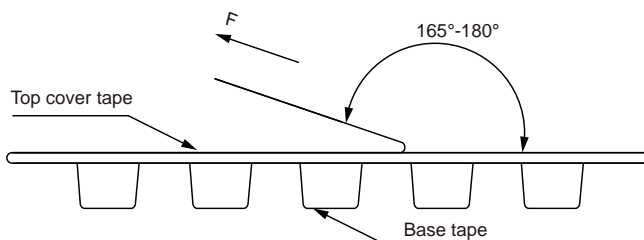
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)
MDA4020HT	4.6± 0.1	4.9± 0.1	1.5± 0.1	4.0± 0.1	8.0± 0.1	12± 0.3	2.3± 0.1	1.75± 0.1

Peel force of top cover tape:

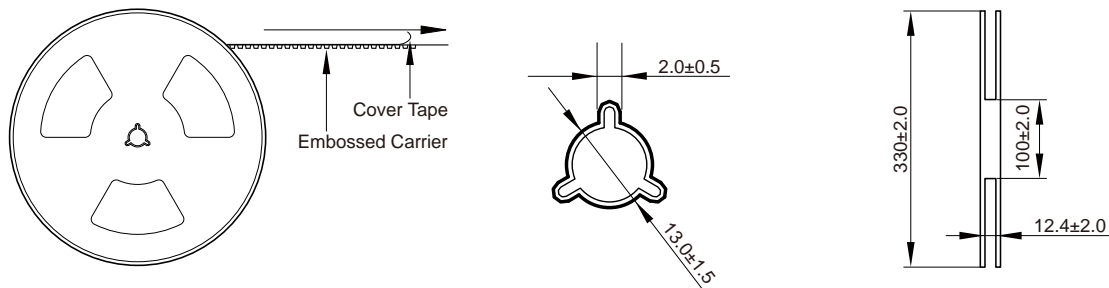


The peel force of top cover tape shall be between 0.1 to 1.3 N

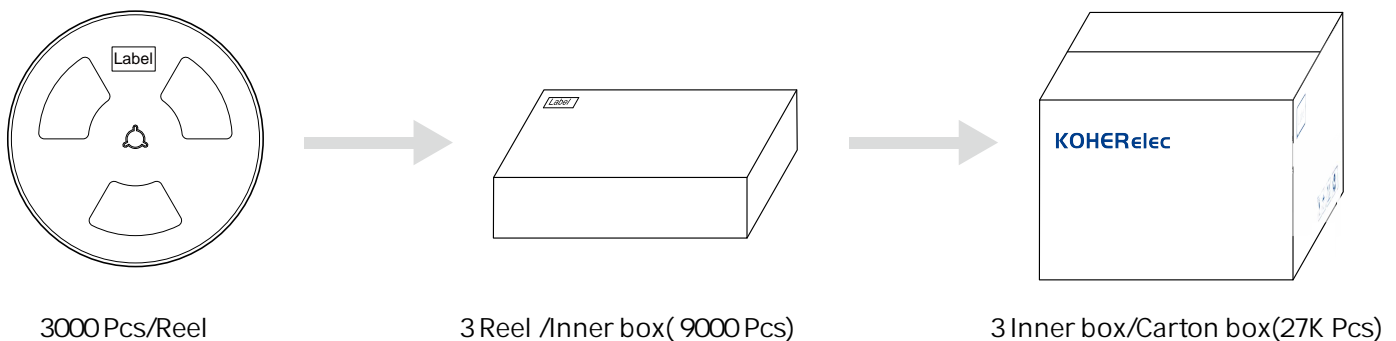
Product Marking:

Marking	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.