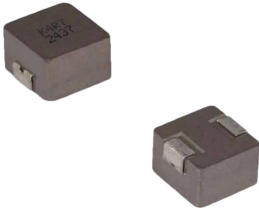


MDA Series

SMD Low Profile High Current Molded Inductor

Size 8050



FEATURES

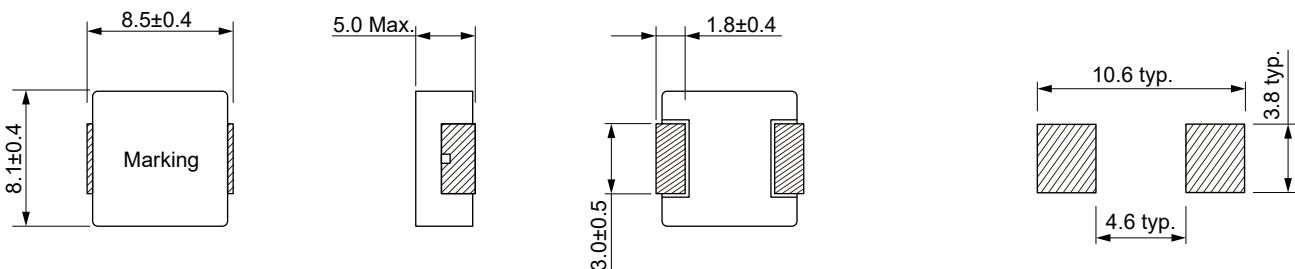
- Low loss realized with low DCR.
- Ultra low buzz noise, due to composite construction .
- 100% Lead(Pb)-Free and RoHS compliant.
- High performance (Isat) realized by metal dust core.
- AEC-Q200 qualified.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 1000PCS

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]



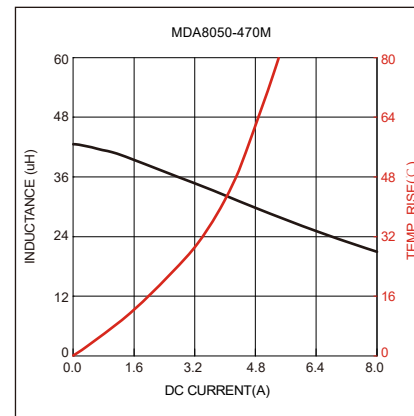
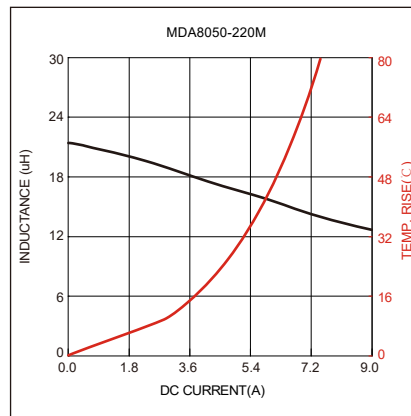
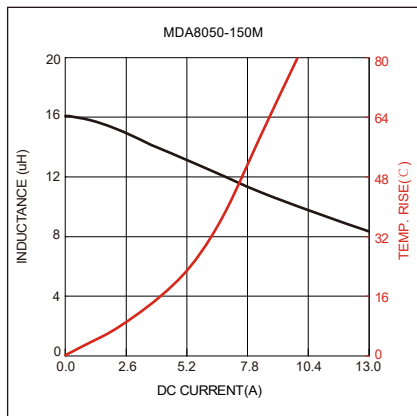
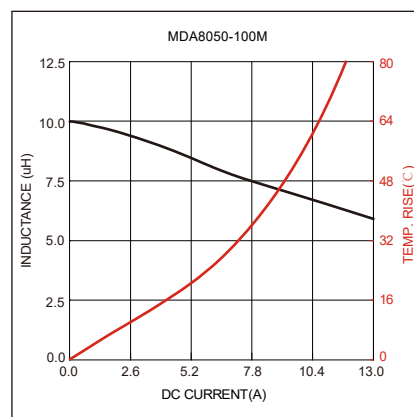
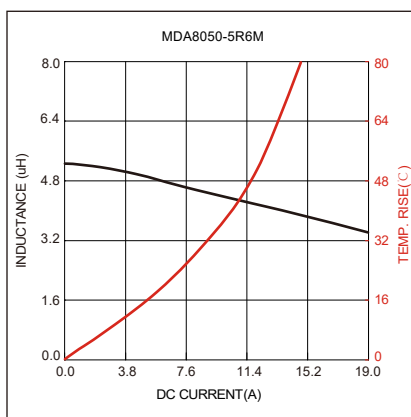
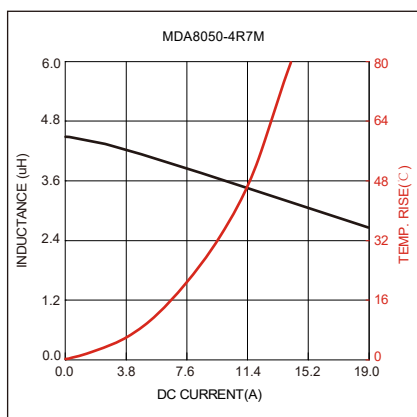
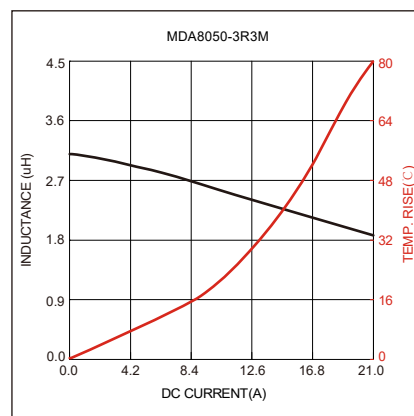
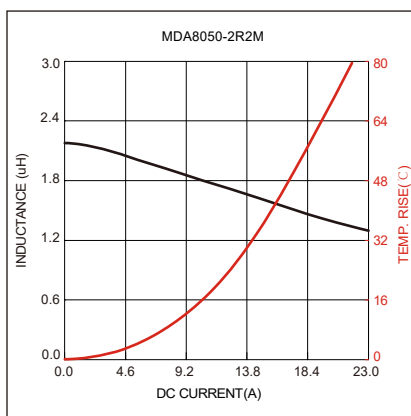
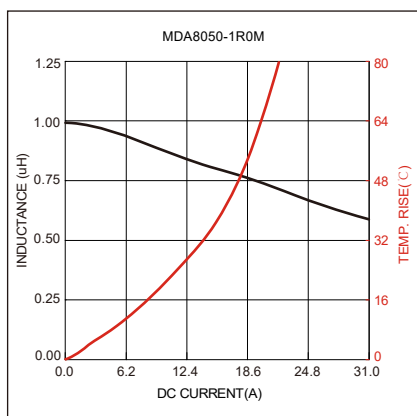
Electrical Properties:

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)
MDA8050-1R0M	1.00	±20%	15.5	14.0	22.0	19.0	4.00	4.80
MDA8050-2R2M	2.20	±20%	14.5	13.0	18.0	15.5	6.50	7.80
MDA8050-3R3M	3.30	±20%	13.5	12.5	16.3	14.0	9.50	12.0
MDA8050-4R7M	4.70	±20%	11.0	9.00	15.0	13.7	20.5	25.0
MDA8050-5R6M	5.60	±20%	8.50	7.90	15.0	13.0	18.0	22.0
MDA8050-100M	10.0	±20%	7.80	6.80	9.00	7.70	29.0	35.0
MDA8050-150M	15.0	±20%	6.00	5.50	7.80	6.70	44.0	52.8
MDA8050-220M	22.0	±20%	5.50	5.00	7.20	6.20	56.0	67.0
MDA8050-470M	47.0	±20%	3.50	3.00	5.20	4.50	122	135

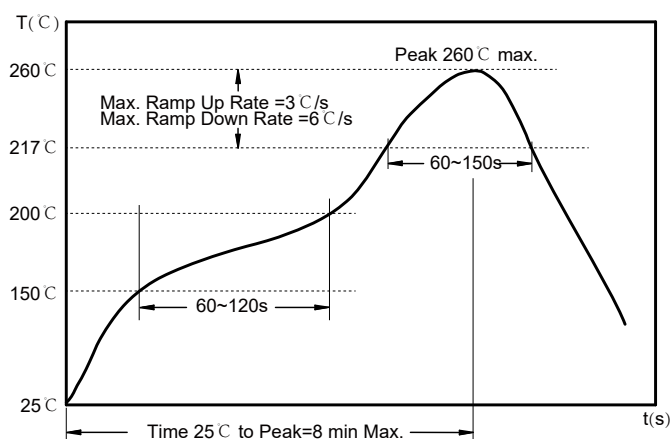
Saturation Current will cause L to drop approximately 35%

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.

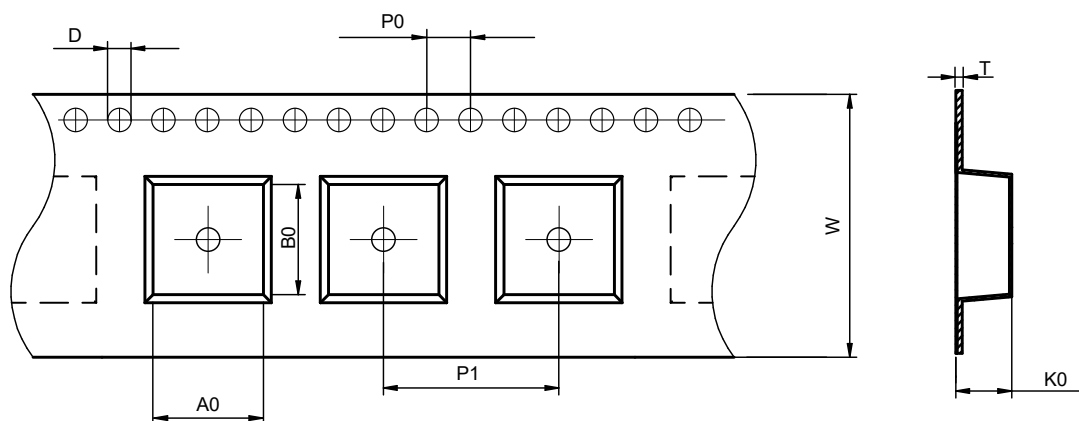
Allowed time above 217 °C : 60~150 sec.

Max temperature: 260 °C .

Allowed Reflow time: 2x max.

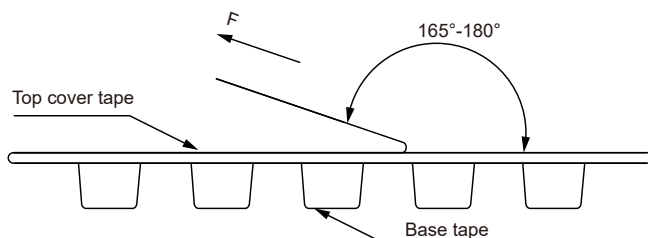
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	T (mm)
MDA8050	8.4 typ	9.6 typ	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.2	5.3 typ	0.35±0.1

Peel force of top cover tape:

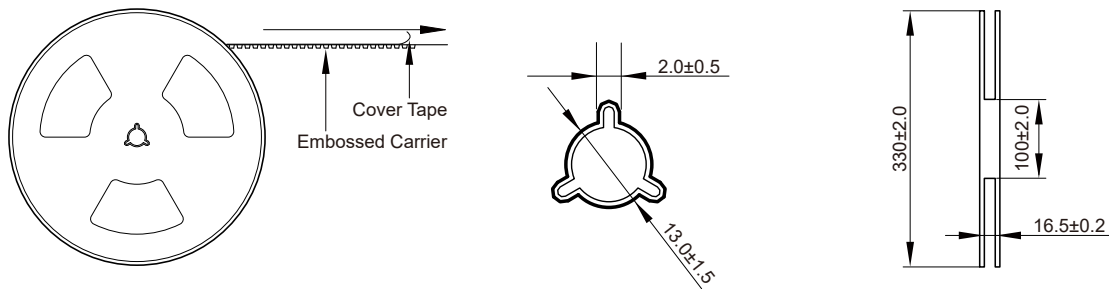


The peel force of top cover tape shall be between 0.1 to 1.3 N

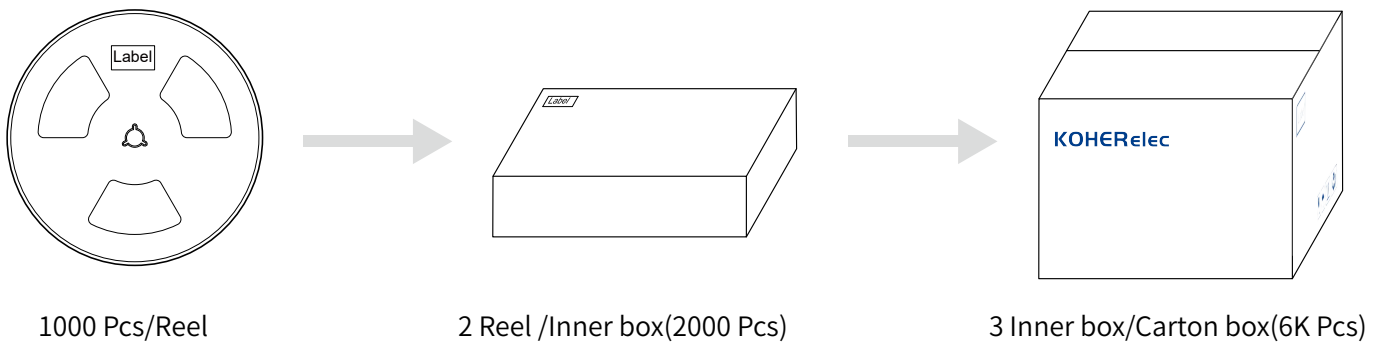
Product Marking:

Marking	K+Printing (Inductance+period)
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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.