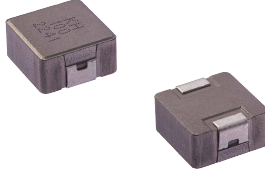


MDA Series

SMD Low Profile High Current Molded Inductor

Size 1365



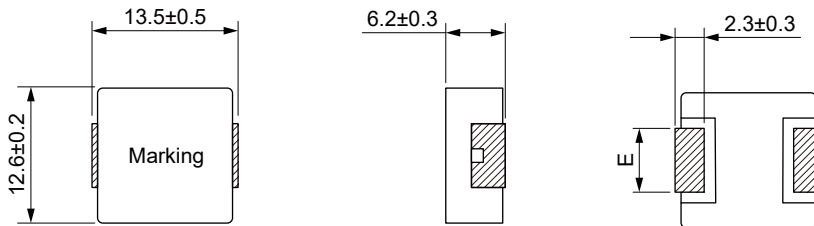
FEATURES

- Shielded construction
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 500PCS

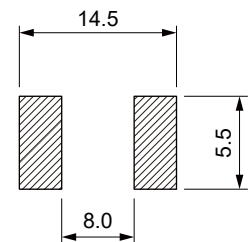
APPLICATION

- 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:

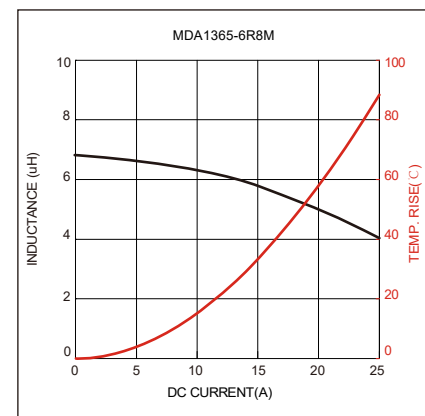
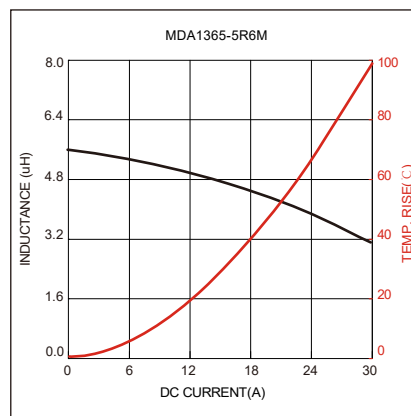
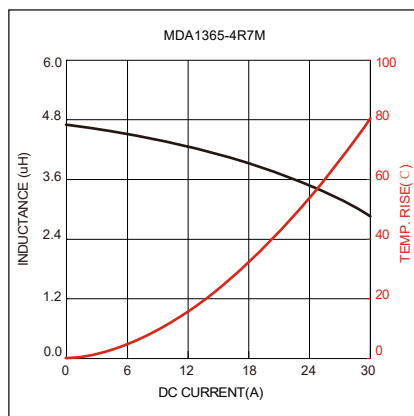
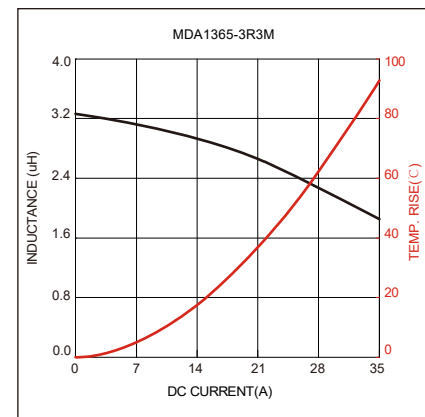
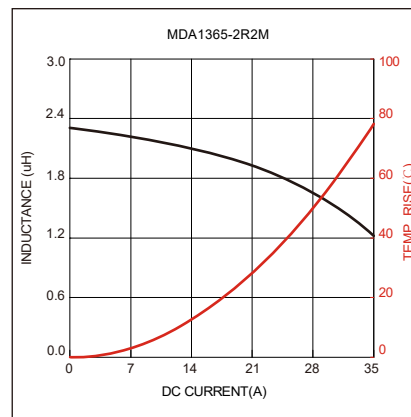
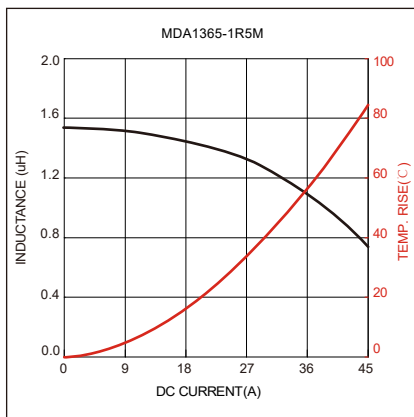
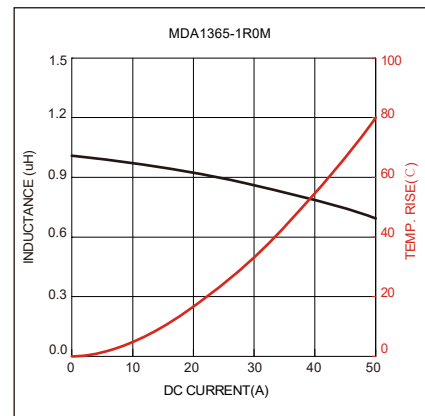
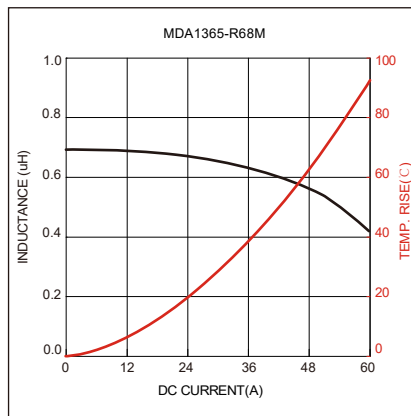
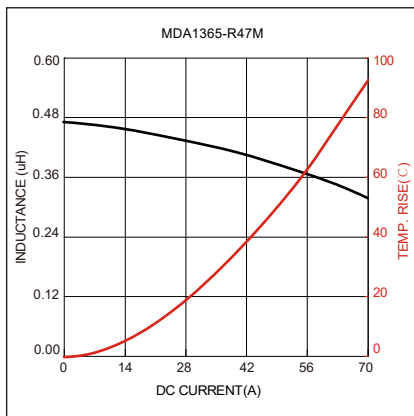
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)	E
MDA1365-R47M	0.47	±20%	42.0	35.0	68.0	58.0	0.88	1.02	4.7±0.3
MDA1365-R68M	0.68	±20%	36.5	33.0	55.0	46.0	1.25	1.50	4.0±0.3
MDA1365-1R0M	1.00	±20%	33.0	29.0	45.0	36.0	1.50	1.80	4.0±0.3
MDA1365-1R5M	1.50	±20%	29.0	25.0	35.0	30.0	2.20	2.60	4.0±0.3
MDA1365-2R2M	2.20	±20%	25.0	21.0	28.5	24.0	3.70	4.20	4.7±0.3
MDA1365-3R3M	3.30	±20%	22.0	19.0	27.0	22.5	5.30	6.20	4.7±0.3
MDA1365-4R7M	4.70	±20%	20.0	17.0	25.0	21.0	6.80	8.00	4.7±0.3
MDA1365-5R6M	5.60	±20%	18.0	15.0	23.0	19.5	8.30	9.80	4.7±0.3
MDA1365-6R8M	6.80	±20%	16.5	14.0	21.0	18.0	9.80	11.3	4.7±0.3
MDA1365-8R2M	8.20	±20%	15.0	12.5	19.0	17.0	12.0	13.8	4.7±0.3
MDA1365-100M	10.0	±20%	13.0	11.0	17.0	15.0	13.0	15.8	4.7±0.3
MDA1365-150M	15.0	±20%	11.0	9.5	13.5	12.0	22.0	26.0	4.7±0.3

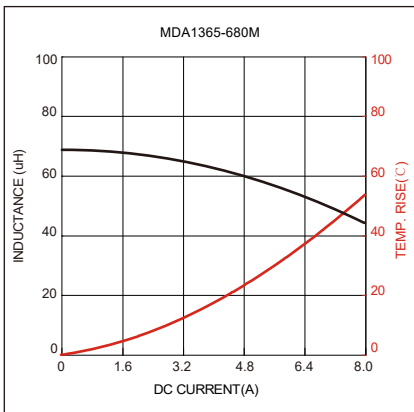
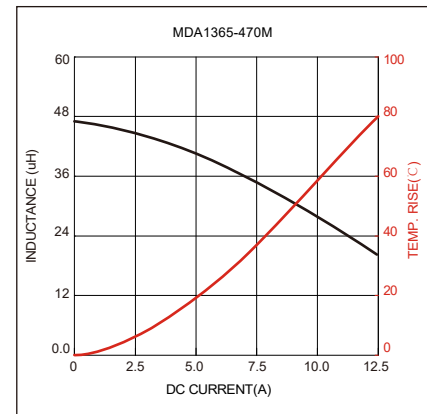
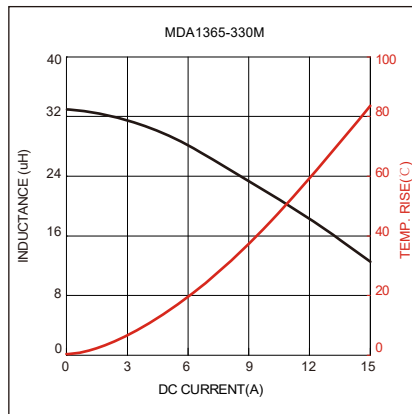
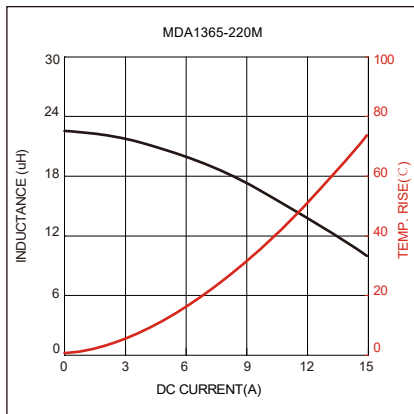
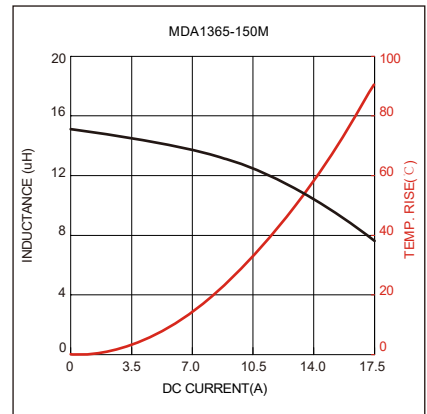
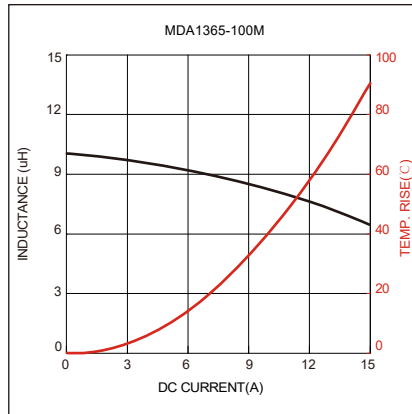
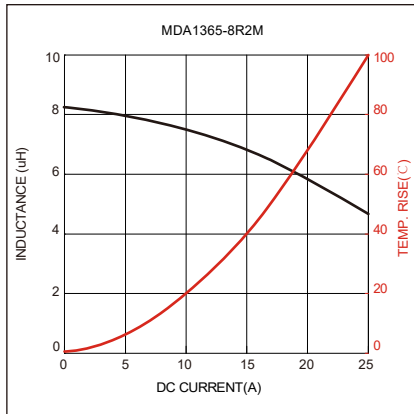
Part No	Inductance @ 100KHz/1V (μ H)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (m Ω)	DC Resistance Max. (m Ω)	E
MDA1365-220M	22.0	$\pm 20\%$	10.0	8.0	10.0	9.0	31.0	35.0	4.7 ± 0.3
MDA1365-330M	33.0	$\pm 20\%$	9.00	6.5	9.00	8.0	46.0	55.0	4.7 ± 0.3
MDA1365-470M	47.0	$\pm 20\%$	8.00	5.7	7.60	6.8	58.0	67.0	4.7 ± 0.3
MDA1365-680M	68.0	$\pm 20\%$	5.80	4.8	6.00	5.0	82.0	100.0	4.7 ± 0.3

Saturation Current will cause L to drop approximately 30%

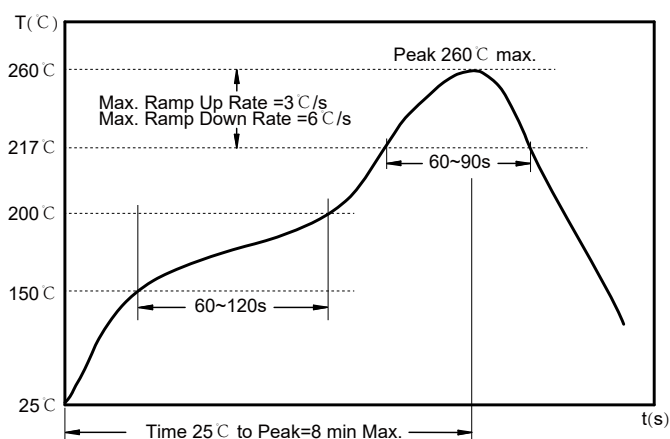
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$

Typical Electrical Characteristics:





Soldering Reflow:



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

Allowed time above 217 °C : 60~90 sec.

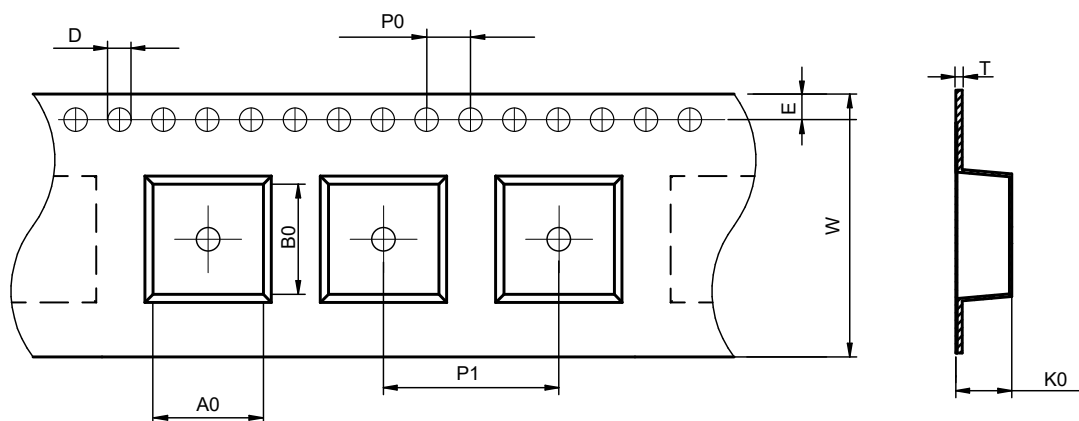
Max temperature: 260 °C .

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

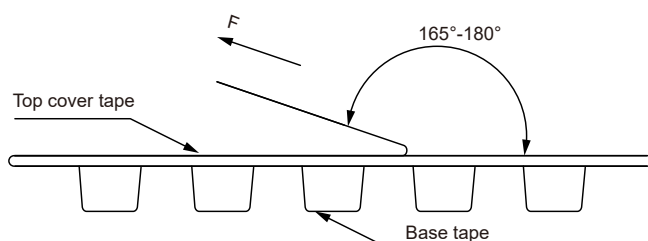
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1365	13.1±0.1	14.0±0.1	1.5±0.1	4.0±0.1	16±0.1	24±0.3	6.8±0.1	1.75±0.1	0.50±0.05

Peel force of top cover tape:

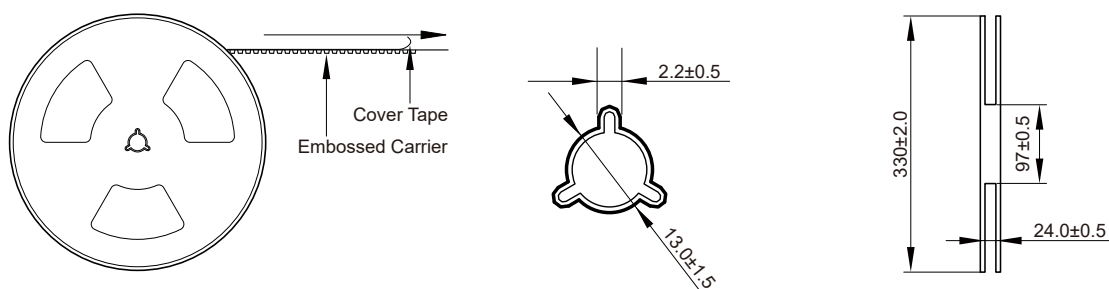


The peel force of top cover tape shall be between 0.1 to 1.3 N

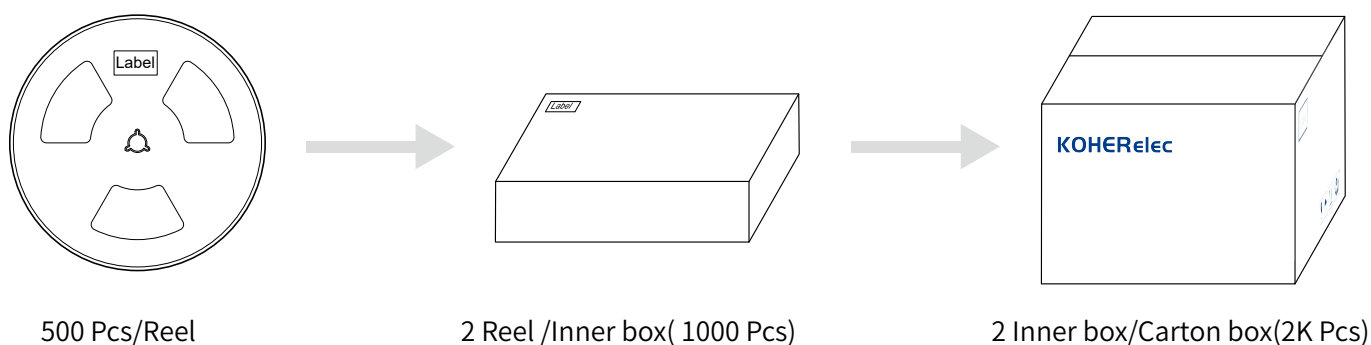
Product Marking:

Marking	KH+Printing (Inductance)
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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.