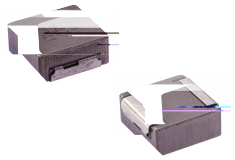
MDA Series

SMD Low Profile High Current Molded Inductor

Size 1870



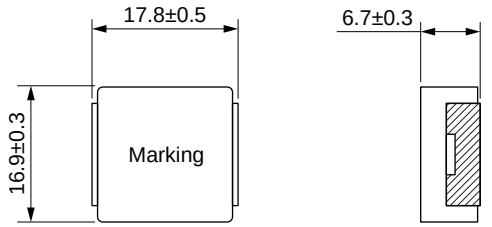
FEATURES

- Shielded construction
-
-
-
- Ultra low buzz noise, due to composite construction.
-
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 200PCS

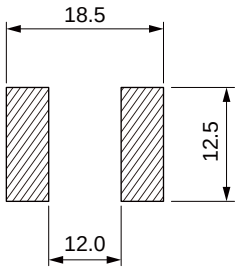
APPLICATION

- Headlamps, tail lamps and interior lighting
-
- Doors, window lift and seat control
-
-
- In-Vehicle Infotainment and navigation

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

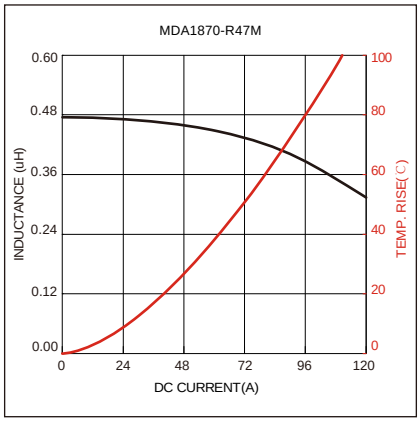
	(µH)				Saturation	Saturation	(mΩ)	(mΩ)

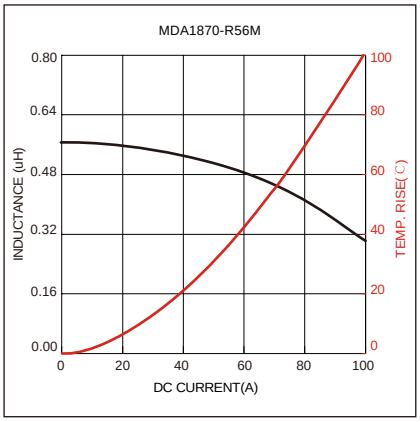
KOHER Electronics
F9, No. 4188, Huaning Rd, Minhang District, Shanghai
021-34753361 Contact@kohergroup.com

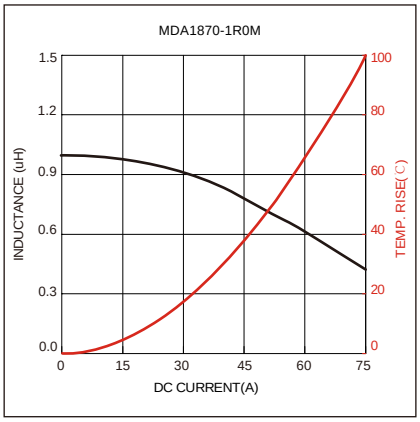
	(μH)				Saturation	Saturation	(mΩ)	(mΩ)

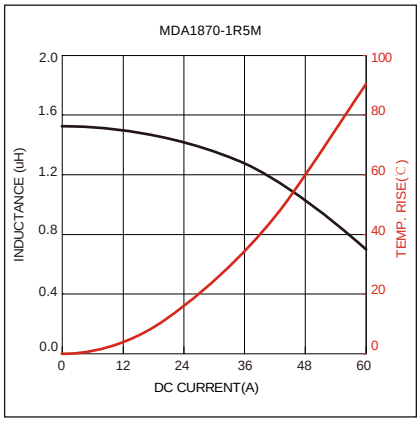
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

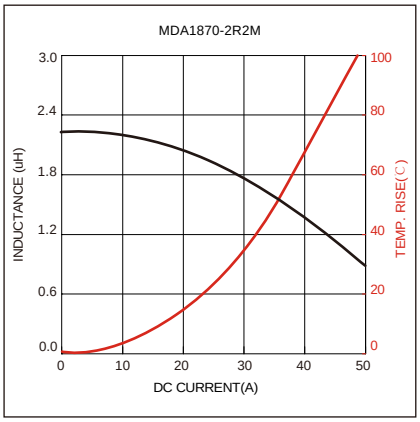
Typical Electrical Characteristics:

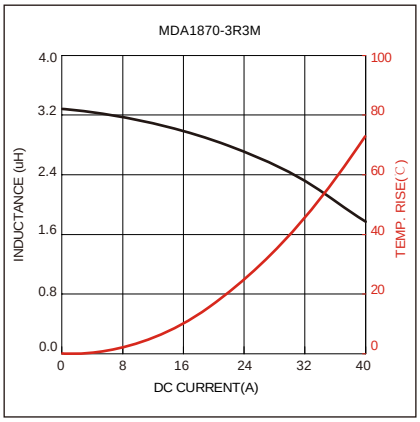


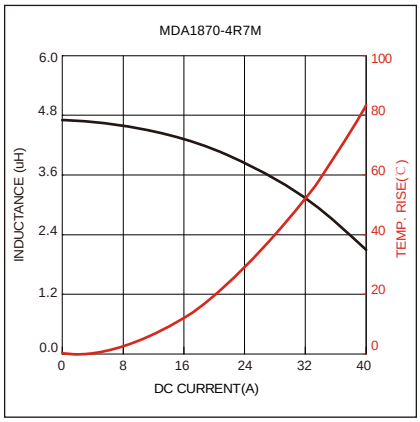


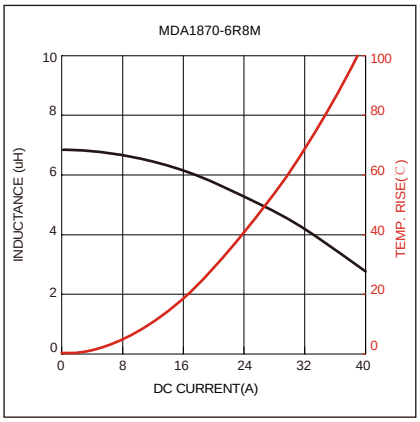


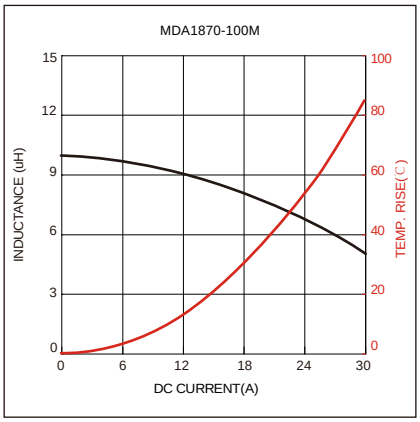


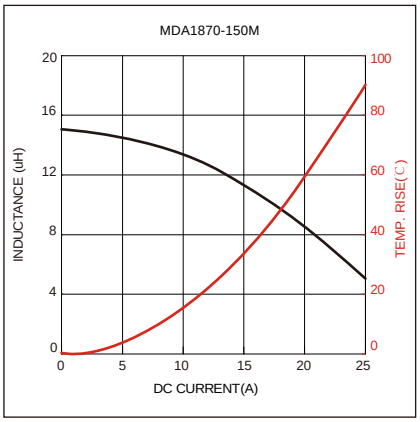


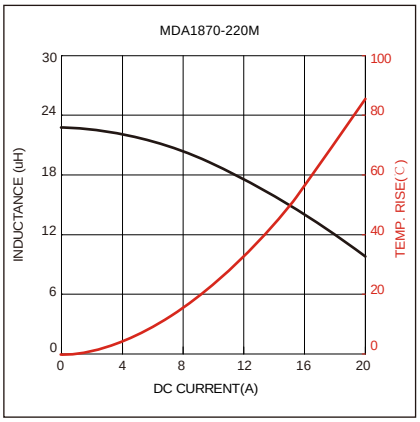


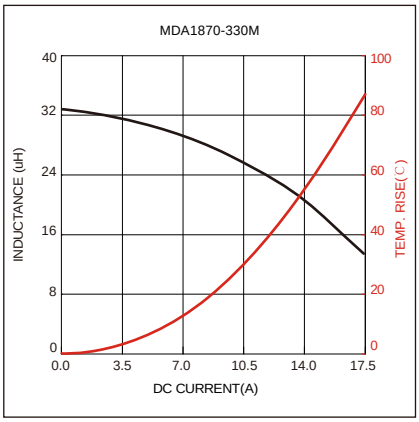


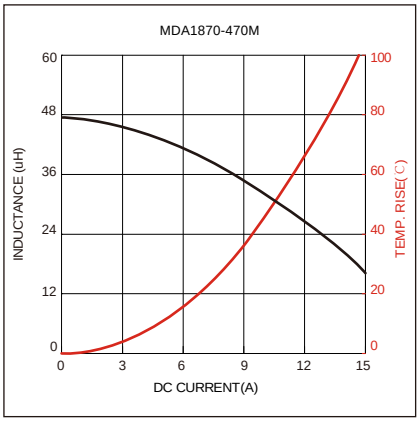


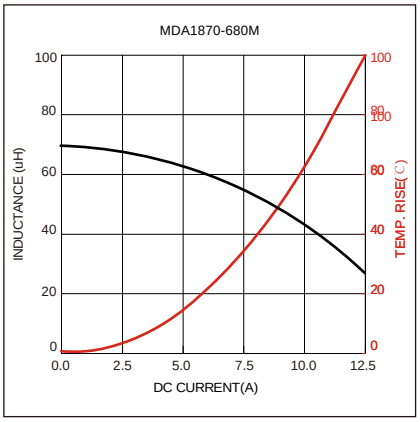


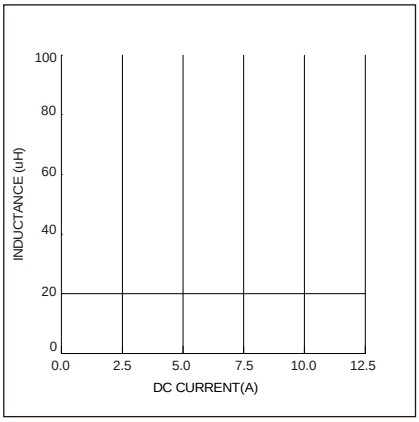

MDA1870-150M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0 4 8 12 16 20
0 20 40 60 80 100
0 5 10 15 20 25


MDA1870-220M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0 6 12 18 24 30
0 20 40 60 80 100
0 4 8 12 16 20

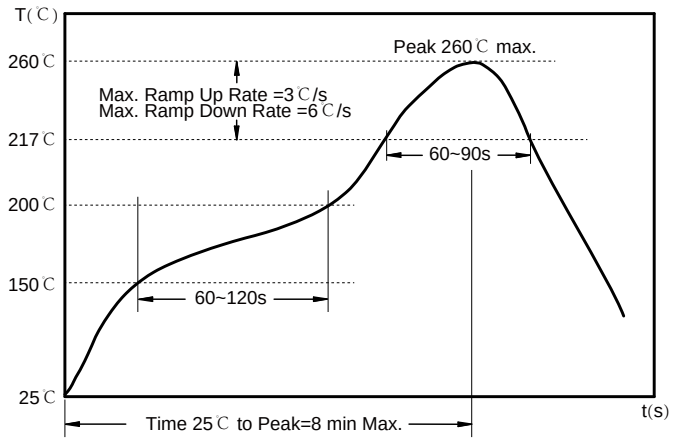

MDA1870-330M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0 8 16 24 32 40
0 20 40 60 80 100
0.0 3.5 7.0 10.5 14.0 17.5


MDA1870-470M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0 12 24 36 48 60
0 20 40 60 80 100
0 3 6 9 12 15


MDA1870-680M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
0 20 40 60 80 100
0 20 40 60 80 100
0.0 2.5 5.0 7.5 10.0 12.5


INDUCTANCE (uH)
DC CURRENT(A)
0 20 40 60 80 100
0.0 2.5 5.0 7.5 10.0 12.5

Soldering Reflow:



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

Allowed time above 217℃: 60~90 sec.

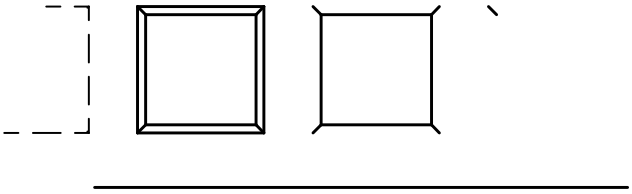
Max temperature: 260℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

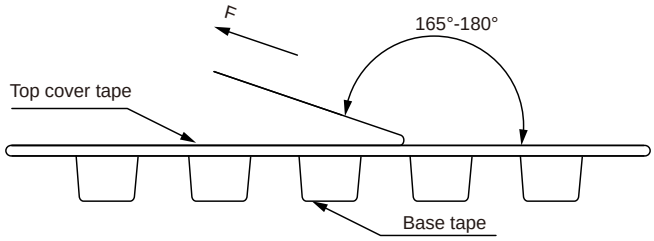
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1870	17.5 ± 0.1	18.1 ± 0.1	1.5 ± 0.1	4.0 ± 0.1	24.0 ± 0.1	32.0 ± 0.3	7.3 ± 0.1	1.75 ± 0.1	0.50 ± 0.05

Peel force of top cover tape:

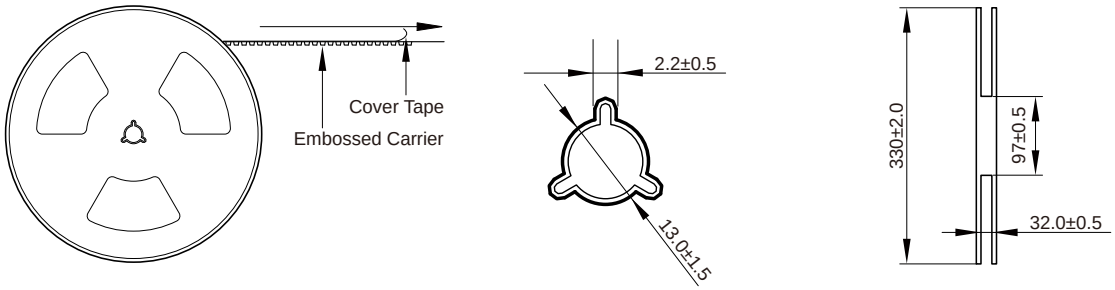


The peel force of top cover tape shall be between 0.1 to 1.3 N

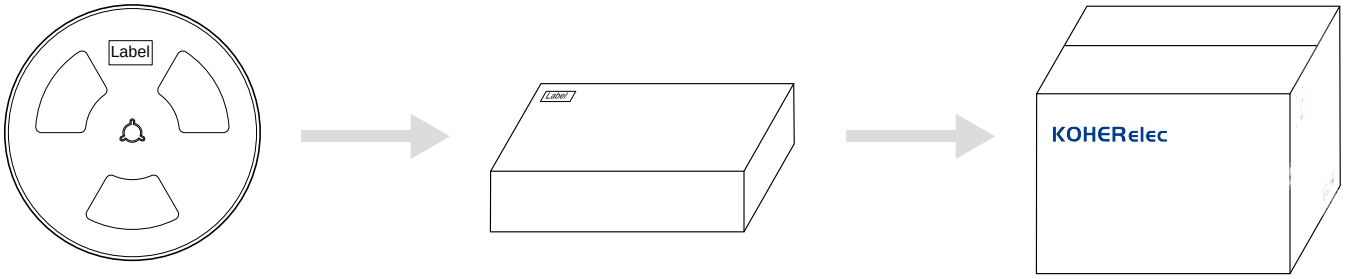
Product Marking:

Marking	KH+Printing Inductance+period)

Reel Dimension：[mm]



Packaging Quantity:



200 Pcs/Reel

2 Reel /Inner box(400 Pcs)

2 Inner box/Carton box(800 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.