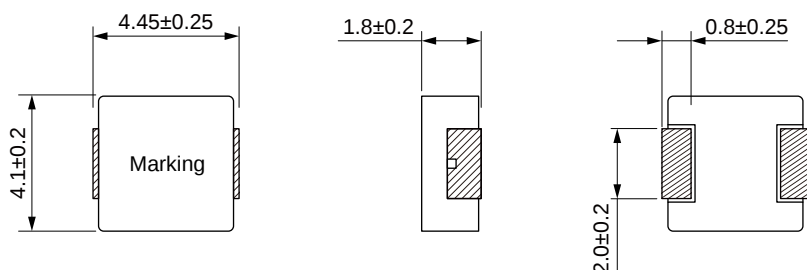


SMD Low Profile High Current Molded Inductor Size 4020

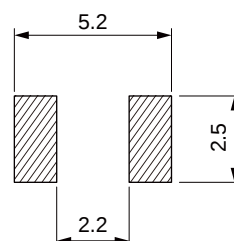


-
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
-
- 100% Lead(Pb)-Free and RoHS compliant.
-
-
-
-
-
- HVAC
-
- Audio subsystem
- Digital instrument cluster
-

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

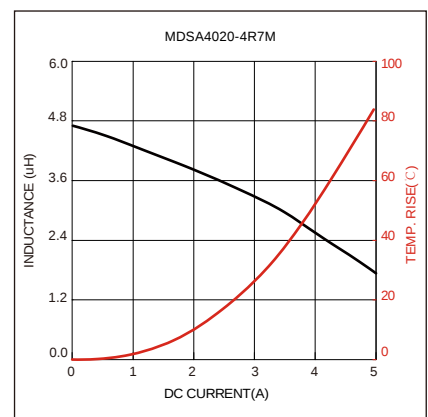
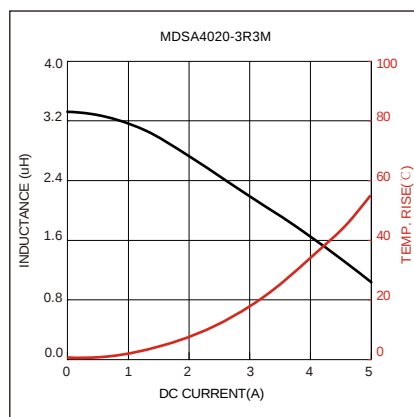
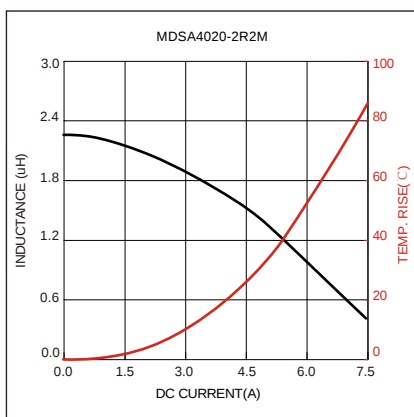
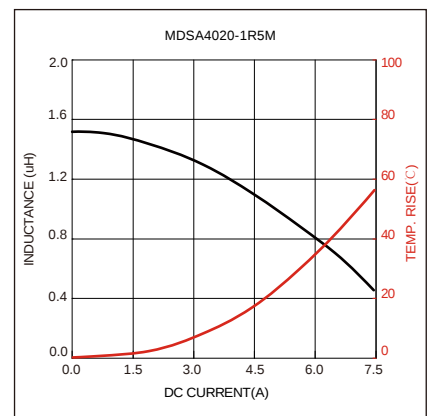
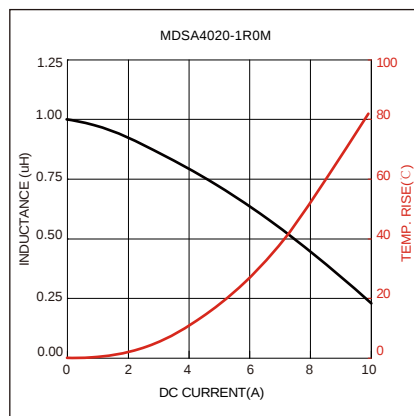
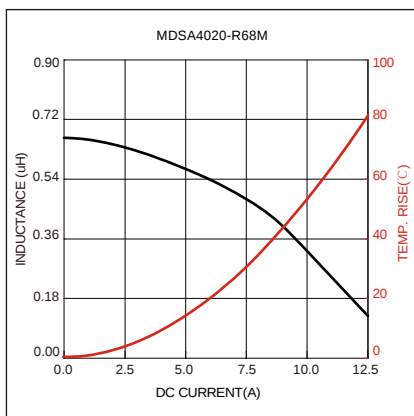
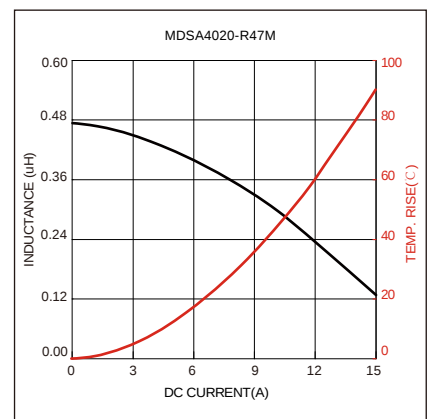
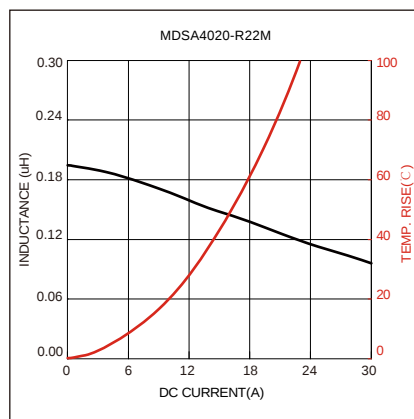
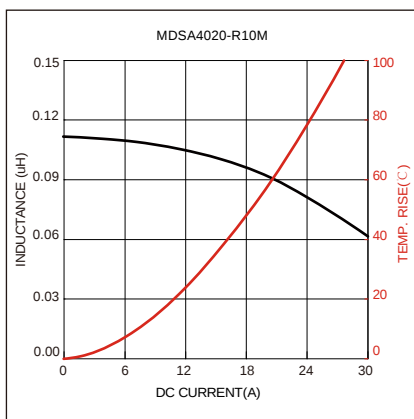
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Current Typ. (A)	Current Max. (A)	DC Resistance Typ.	DC Resistance Max.
MDSA4020-R10M	0.10	±20%			26.0	22.0		
MDSA4020-R22M	0.22	±20%	14.0	12.4				
MDSA4020-R47M	0.47	±20%	10.0					11.0
		±20%					11.7	
MDSA4020-1R0M	1.00	±20%	7.4	6.4				22.1
		±20%	6.6			4.7	27.2	
MDSA4020-2R2M	2.20	±20%				4.0	41.1	
		±20%	4.4			2.6		
MDSA4020-4R7M	4.70	±20%				2.4		

Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Current Typ. (A)	Current Max. (A)	DC Resistance Typ.	DC Resistance Max.
		±20%		2.7		2.2		
		±20%			2.4	2.1		
		±20%		2.2	2.1	2.0		
MDSA4020-100M	10.0	±20%	2.4	2.1	2.1			

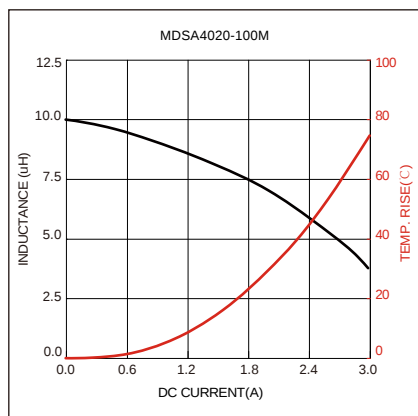
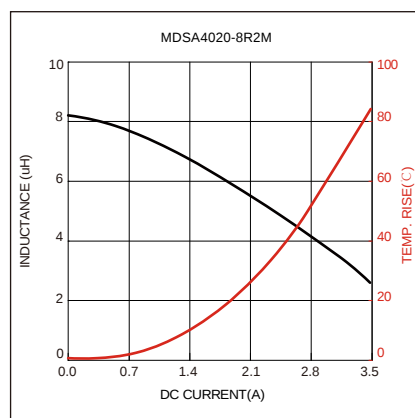
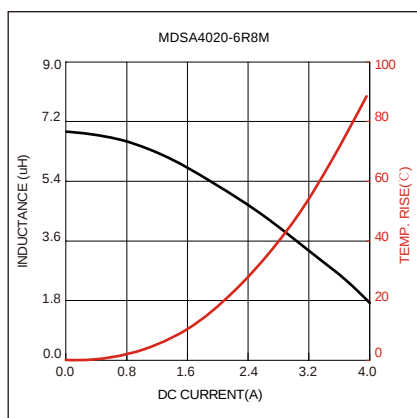
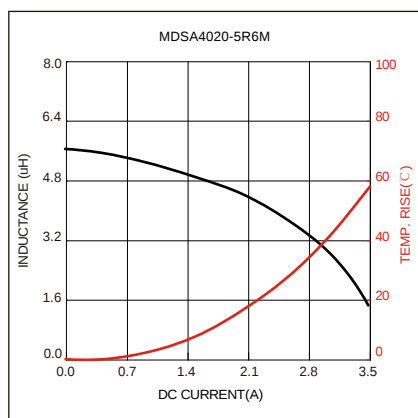
Saturation Current will cause L to drop approximately 30%

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

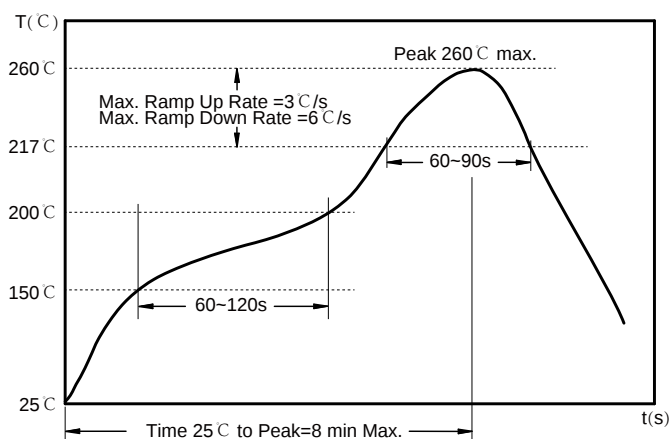
Typical Electrical Characteristics:



Typical Electrical Characteristics:



Soldering Reflow:



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

Allowed time above 217°C : 60~90 sec.

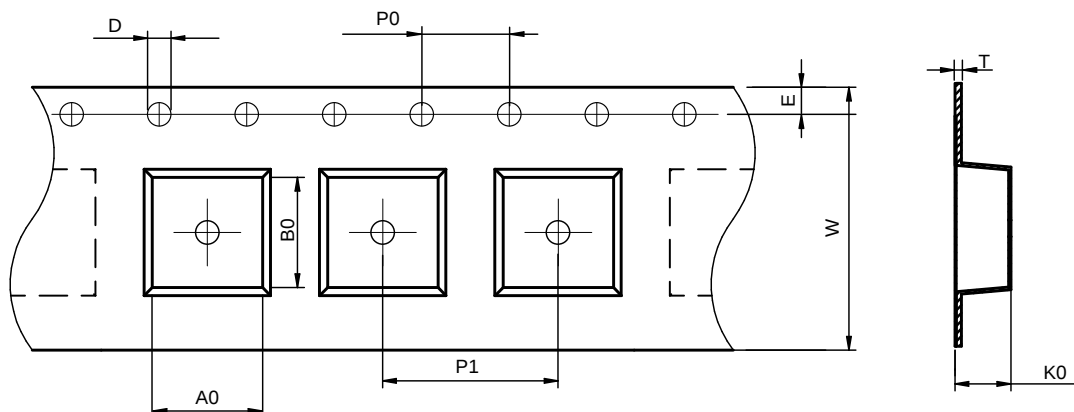
Max temperature: 260°C.

Max time at max temperature: 5 sec.

Allowed Reflow time: 2x max.

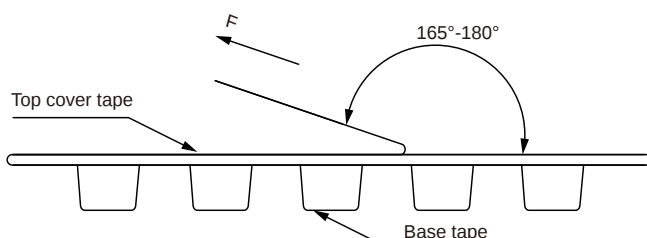
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDSA4020	4.5 ± 0.1	4.85 ± 0.1	1.5 ± 0.1	4.0 ± 0.1	8.0 ± 0.1	12.0 ± 0.3	2.3 ± 0.1	1.75 ± 0.1	0.35 ± 0.05

Peel force of top cover tape:

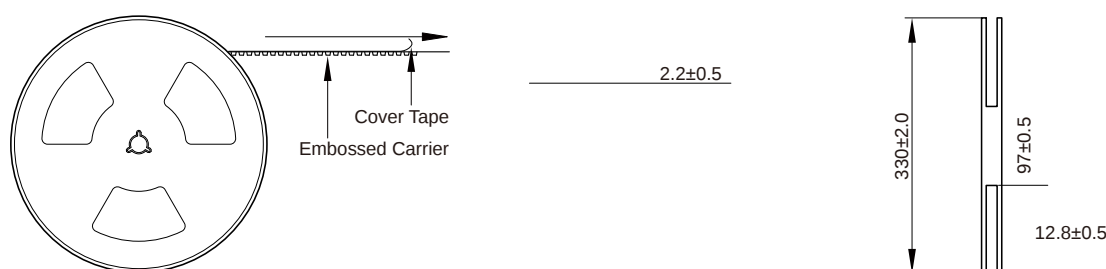


The peel force of top cover tape shall be between 0.1 to 1.3 N

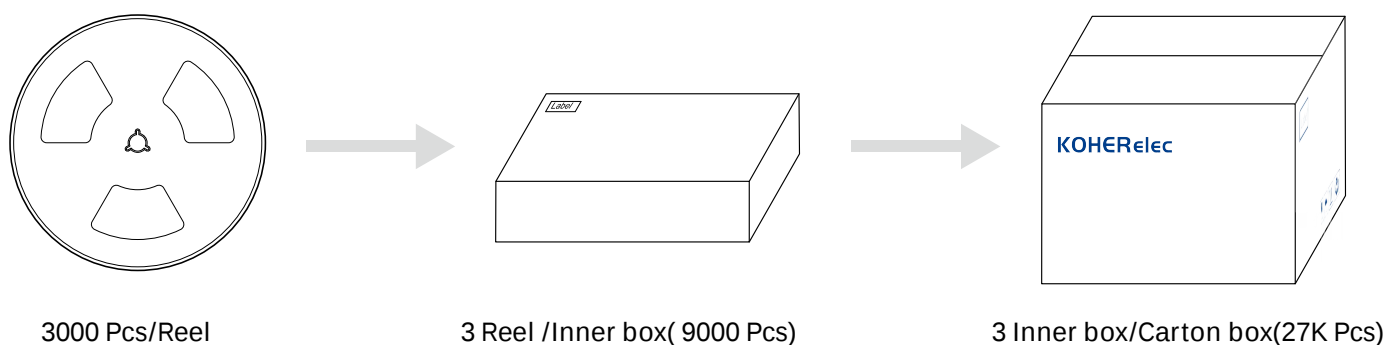
Product Marking:

Marking	K+Printing Inductance)
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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 should be responsible for confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.