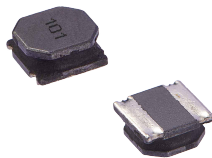


## NRSA Series

### SMD Power Inductors For Automotive Size 4018W



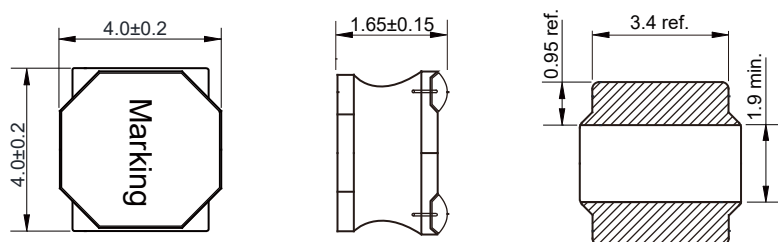
#### FEATURES

- Magnetic shield type wound inductor for power circuits using a ferrite magnetic material
- High magnetic shield construction and compatible with high-density mounting.
- Larger current and lower Rdc were achieved by optimizing the ferrite core figure.
- Operating temperature: -55 to +125°C(including self-temperature rise)
- AEC-Q200 qualified
- Quantity: 3000pcs

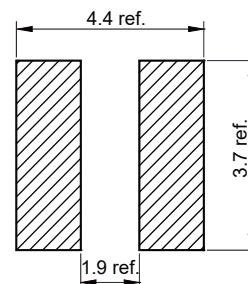
#### APPLICATION

- Smart cockpit

#### Dimensions: [mm]



#### Land Pattern: [mm]



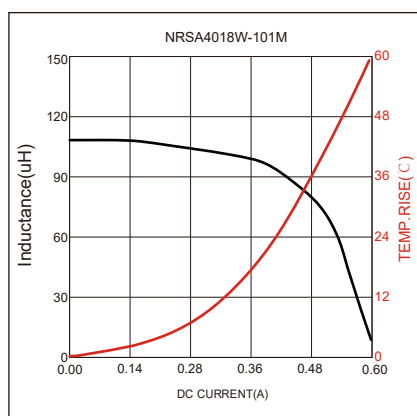
#### Electrical Properties:

Part No	Inductance @100KHz/1V (μH)	Tolerance	Temperature Rise Current Max. (A)	Saturation Current Max. (A)	DC Resistance ±20% (Ω)
NRSA4018W-101M	100	±20%	0.42	0.46	1.9

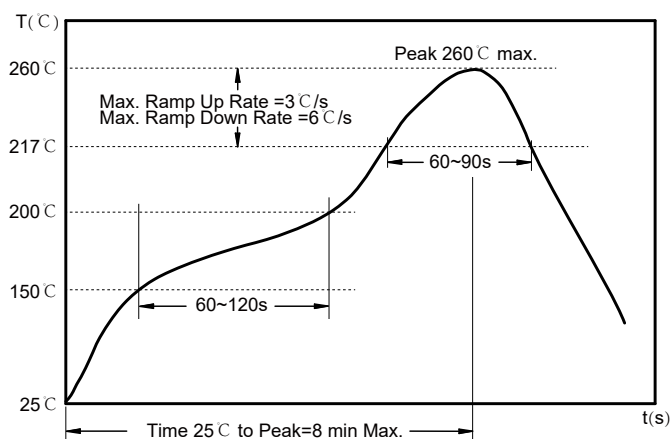
Saturation Current will cause L to drop approximately 30%

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.

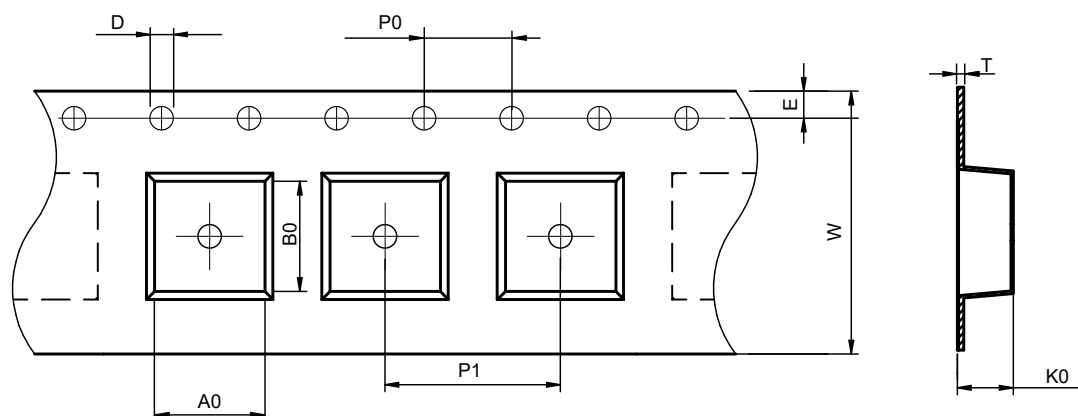
Allowed time above 217 °C : 60~90 sec.

Max temperature: 260 °C .

Allowed Reflow time: 2x max.

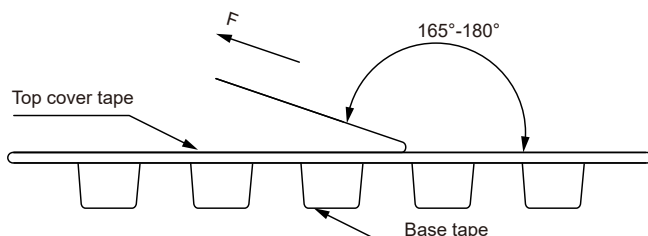
## Packaging Information:

### Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
NRSA4018W	4.3±0.1	4.3±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12.0±0.3	2.25±0.1	1.75±0.1	0.30±0.05

### Peel force of top cover tape:

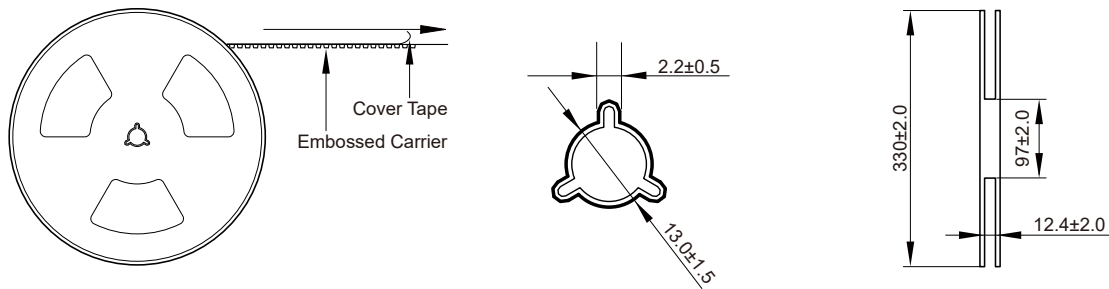


The peel force of top cover tape shall be between 0.3 to 1.17 N

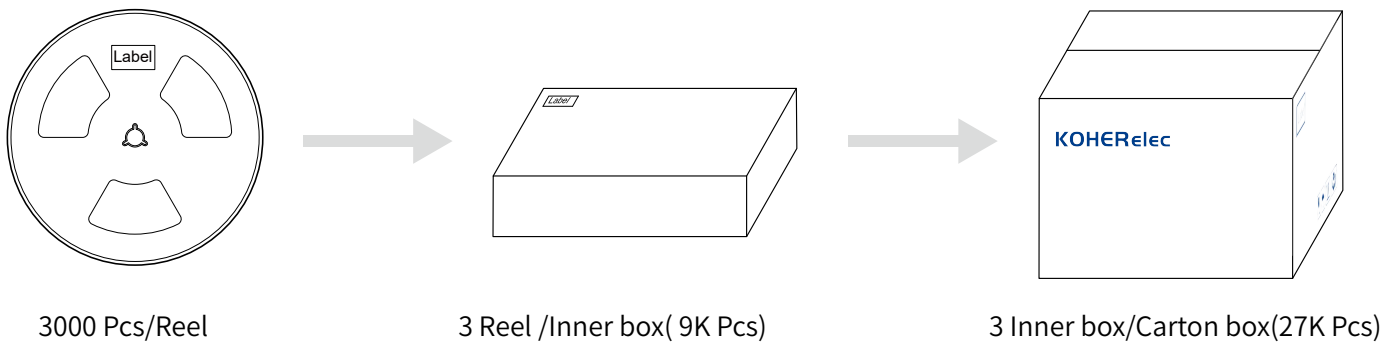
### Product Marking:

Marking	101
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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.