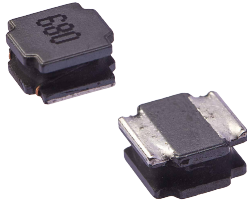


**NRSA Series**  
**SMD Power Inductors For Automotive**  
**Size 8040**



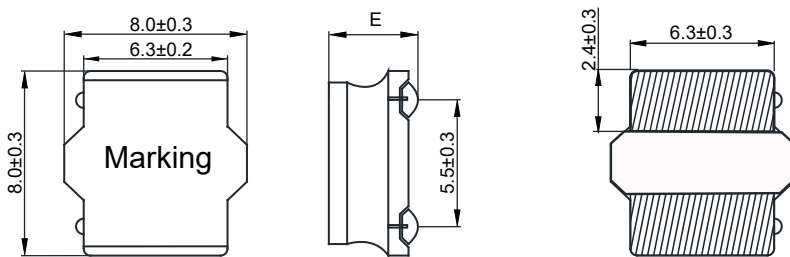
**FEATURES**

- 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: 1000pcs

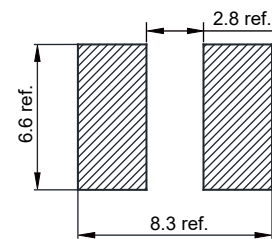
**APPLICATION**

- Car navigation, car stereo and car accessories only

**Dimensions: [mm]**



**Land Pattern: [mm]**




**Electrical Properties:**

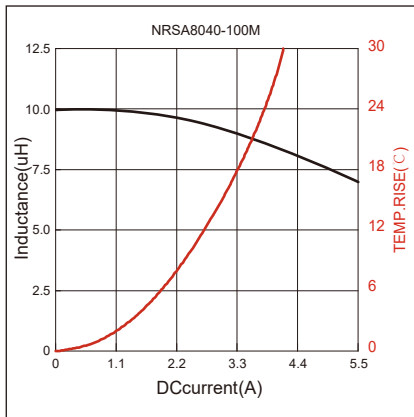
Part No	L@100KHz/1V (μH)	Tolerance	I <sub>SAT</sub> Typ. (A)	I <sub>SAT</sub> Max. (A)	I <sub>R</sub> Typ. (A)	I <sub>R</sub> Max. (A)	R <sub>DC</sub> ±20% (mΩ)	E
NRSA8040-100M	10	±20%	5.00	4.30	4.60	4.20	33.0	4.2 Max


I<sub>R</sub> will cause the coil temperature rise approximately Δt40 °C

I<sub>SAT</sub> will cause L to drop approximately 30% .

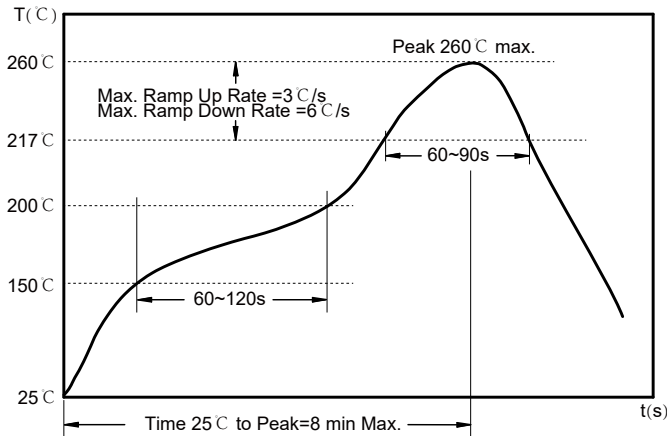
				UNIT: MM	 KOHER (Shanghai) Electronics Co.,Ltd
				SHEET:1/5	
				APPROVAL:WS	
A0	13-OCT-23	PDF	WL	SIZE: A4	DESCRIPTION:SMD Power Inductors For Automotive
REV	DATE	FILE	BY	PACKING UNIT: 1000pcs	PART NO:NRSA8040-100M

Typical Electrical Characteristics:



				UNIT: MM	 KOHER (Shanghai) Electronics Co.,Ltd
				SHEET:2/5	
				APPROVAL:WS	
A0	13-OCT-23	PDF	WL	SIZE: A4	DESCRIPTION:SMD Power Inductors For Automotive
REV	DATE	FILE	BY	PACKING UNIT: 1000pcs	PART NO:NRSA8040-100M

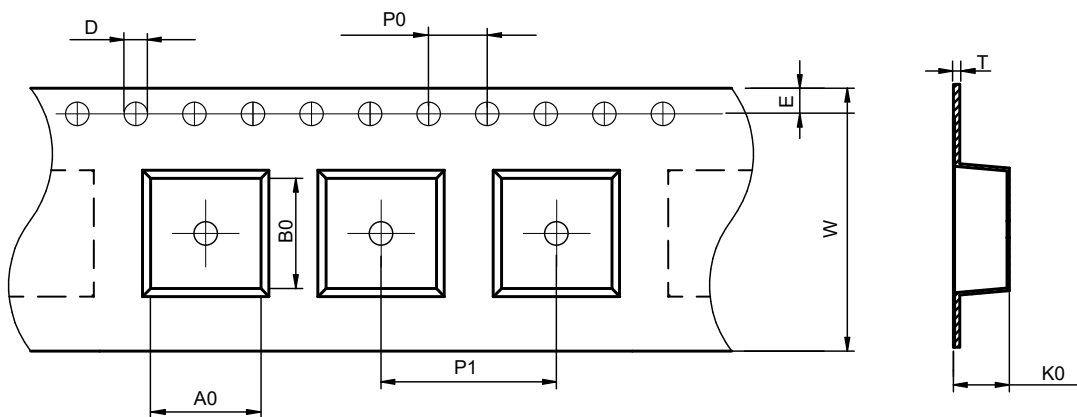
Soldering Reflow:



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:

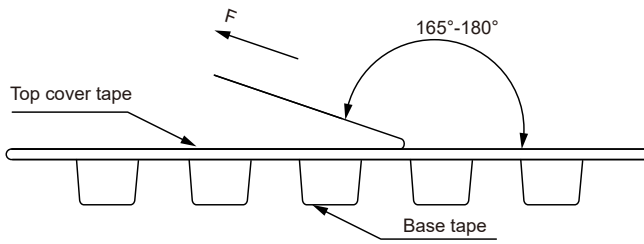
Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
NRSA8040	8.55±0.1	8.55±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	4.4±0.1	1.75±0.1	0.40±0.05

				UNIT: MM	 KOHER (Shanghai) Electronics Co.,Ltd
				SHEET:3/5	
				APPROVAL:WS	
A0	13-OCT-23	PDF	WL	SIZE: A4	DESCRIPTION:SMD Power Inductors For Automotive
REV	DATE	FILE	BY	PACKING UNIT: 1000pcs	PART NO:NRSA8040-100M

Peel force of top cover tape:

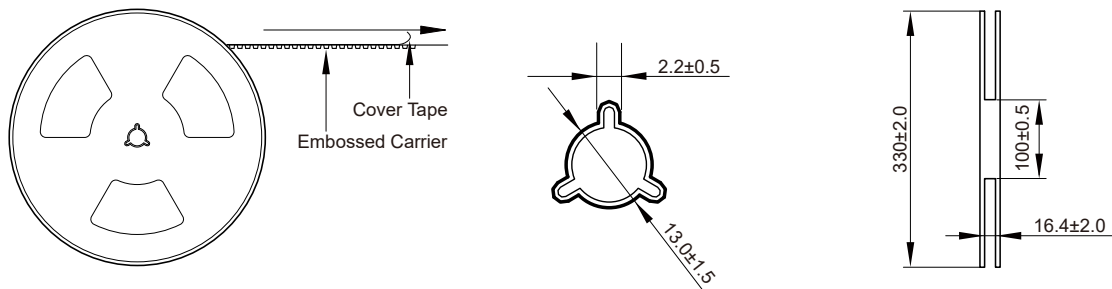


The peel force of top cover tape shall be between 0.3 to 1.17 N

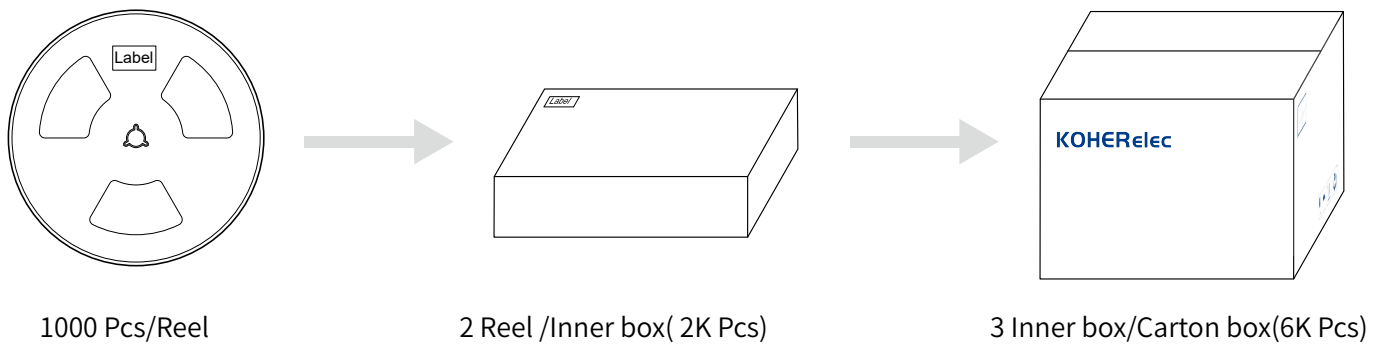
Product Marking:

Marking	Printing (Inductance)
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Reel Dimension: [mm]




Packaging Quantity:



1000 Pcs/Reel

2 Reel /Inner box( 2K Pcs)

3 Inner box/Carton box(6K Pcs)

				UNIT: MM	 KOHER (Shanghai) Electronics Co.,Ltd
				SHEET:4/5	
				APPROVAL:WS	
A0	13-OCT-23	PDF	WL	SIZE: A4	DESCRIPTION:SMD Power Inductors For Automotive
REV	DATE	FILE	BY	PACKING UNIT: 1000pcs	PART NO:NRSA8040-100M


## 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.

				UNIT: MM	 KOHER (Shanghai) Electronics Co.,Ltd
				SHEET:5/5	
				APPROVAL:WS	
A0	13-OCT-23	PDF	WL	SIZE: A4	DESCRIPTION:SMD Power Inductors For Automotive
REV	DATE	FILE	BY	PACKING UNIT: 1000pcs	PART NO:NRSA8040-100M

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[MHQ1005P5N1S](#) [MHQ1005P8N2J](#) [PE-53601NL](#) [PE-53602NL](#) [PG0936.113NLT](#) [9220-20](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#)  
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