

SMD Power Inductors For Automotive Size 4014B



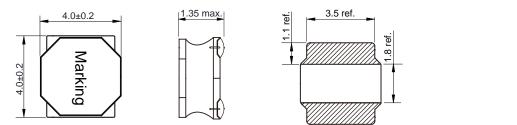
- Magne c shield type wound inductor for power circuits using a ferrite magne c material
- High magne c shield construc on and compa ble with high-density moun ng.
- Larger current and lower Rdc were achieved by op mizing the ferrite core figure.
- Opera ng temperature: -55 to +125°C(including self-tem perature rise)
- AEC-Q200 qualified

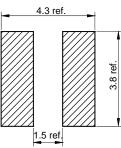


Car naviga on, car stereo and car accessories only

Dimensions: [mm]

Land Pattern: [mm]

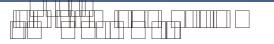




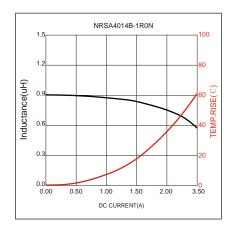
Electrical Properties:

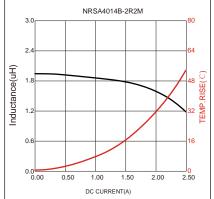
Part No	Inductance @100KHz/1V (µH)	Tolerance	Temperature Rise Current Typ. (A)	Satura on Current Typ. (A)	DC Resistance ±20% (m)	
NRSA4014B-1RON	1.0	±30%	2.20	2.80	45	
NRSA4014B-2R2M	2.2	±20%	1.90	1.65	75	
NRSA4014B-3R3M	3.3	±20%	1.70	1.40	108	
NRSA4014B-4R7M	4.7	±20%	1.50	1.20	108	

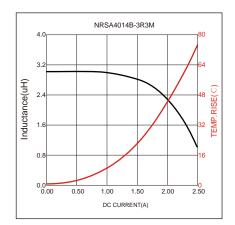
Saturation Current will cause L to drop approximately 30% Temperature Rise Current: The actual value of DC current when the temperature rise is \triangle T=40°C

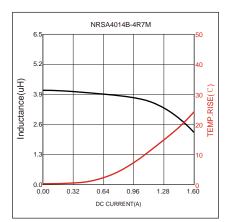


Typical Electrical Characteristics:



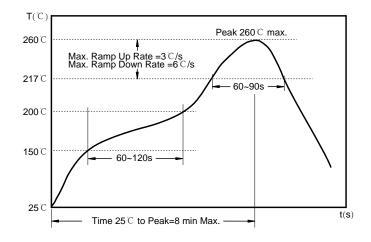








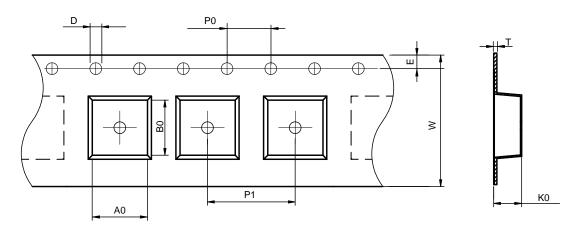
Soldering Reflow:



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.

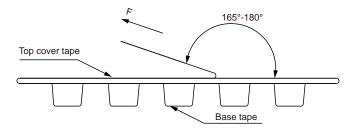
Packaging Information:

Tape Dimension:



Series	A0	B0	D	P0	P1	W	K0	E	T
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
NRSA4014B	4.25±0.1	4.25±0.1	1.5 ± 0.1	4.0±0.1	8.0±0.1	12.0±0.3	1.4 ± 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 $\rm N$

Product Marking:

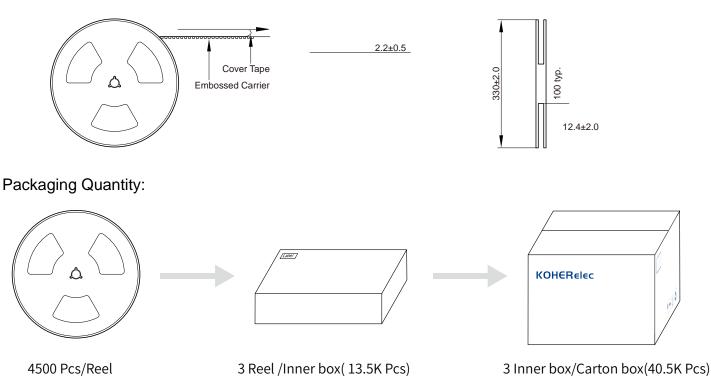
Marking

Printing (Inductance)





Reel Dimension: [mm]



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.

