

Inductors

NRS5024T6R8MMGJV



■ Features

- Item Summary
6.8uH±20%, 1.6A, 4.9x4.9x2.4mm
- Lifecycle Stage
New PN available
- AEC-Q200 qualified
- Standard packaging quantity (minimum)
Taping Embossed 2500pcs

■ Products characteristics table

Inductance	6.8 uH ± 20 %
Case Size (mm)	4.9x4.9
Rated Current (max)	1.6 A
Saturation Current (max)	2.2 A ($\Delta L=30\%$)
Saturation Current (typ)	2.75 A ($\Delta L=30\%$)
Temperature Rise Current (max)	1.6 A ($\Delta T=40^{\circ}\text{C}$)
Temperature Rise Current (typ)	1.8 A ($\Delta T=40^{\circ}\text{C}$)
DC Resistance (max)	96 m Ω
DC Resistance (typ)	80 m Ω
LQ Measuring Frequency	100 kHz
Self Resonant Frequency (min)	28 MHz
Operating Temp. Range	-40 to +125 $^{\circ}\text{C}$ (Including-self-generated heat)
Temperature characteristic (Inductance change)	± 20 %
RoHS Compliance (10 subst.)	Yes
REACH Compliance (223 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

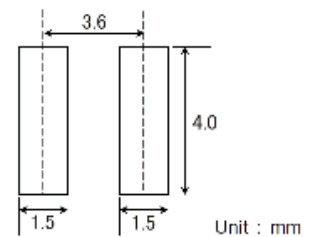
■ External Dimensions

Dimension L	4.9 ± 0.2 mm
Dimension W	4.9 ± 0.2 mm
Dimension H	Max 2.4 mm
Dimension e	1.2 ± 0.2 mm
Dimension f	3.3 ± 0.2 mm
Dimension ΔI	Typ 1.3 mm

■ Recommended Land Patterns

【推奨のランドパターン】
 二層基板の場合
 ・銅箔の厚さを0.03mm以上0.05mm以下に設定してください。
 ・銅箔の表面粗さをRa0.3以下にしてください。

【Printed Circuit Board Pattern】
 Surface Mounting
 ・If a 2-layer board is used, the copper thickness should be 0.03mm to 0.05mm.
 ・Apply the surface roughness of the copper foil to Ra0.3 or below.



SMD Power Inductors for Industrial / Automotive Comfort and Safety Applications
(NR series S type)(AEC-Q200 qualified)

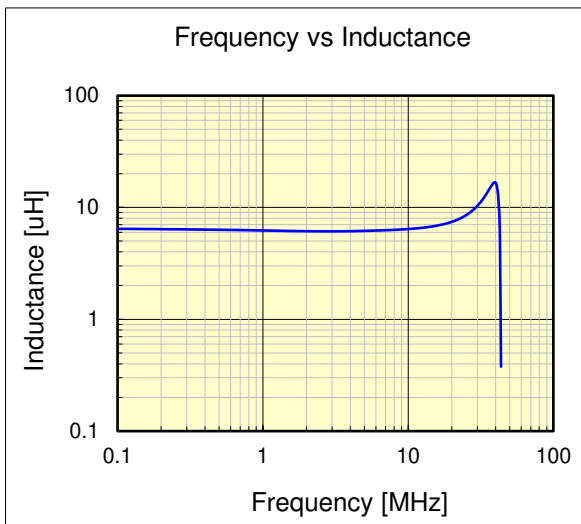
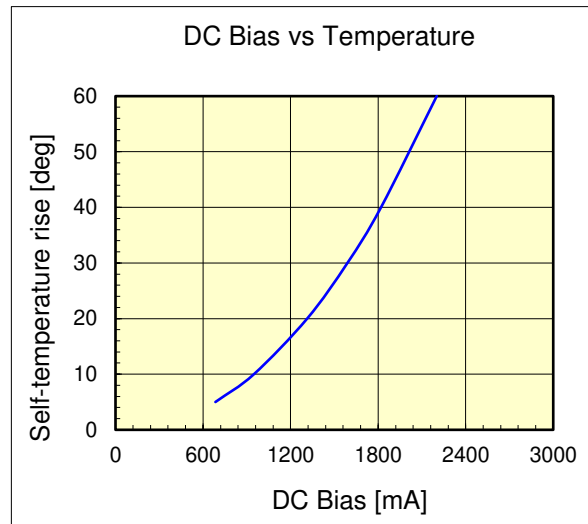
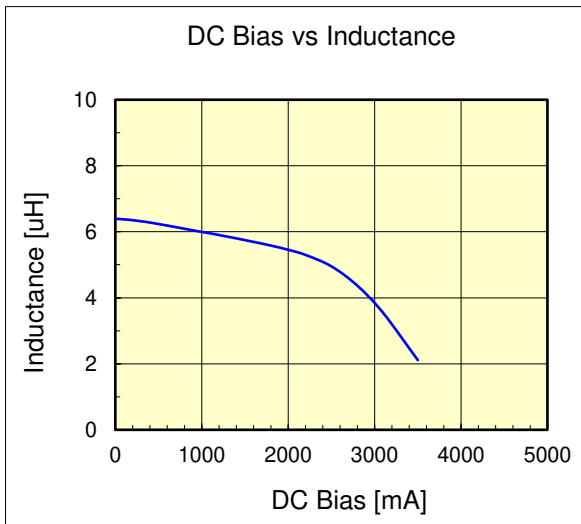
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AEC-Q200 qualified

Dimension	unit : mm	unit : inch
Length :	4.9 +/- 0.2	(0.193 +/- 0.008)
Width :	4.9 +/- 0.2	(0.193 +/- 0.008)
Height :	2.4 max.	(0.094 max.)

Inductance :	6.8	uH (test freq at 0.1MHz)
DC Resistance :	0.08 / 0.096	ohm (typ / max)
Saturation Current :	2,200	mA (max)
Temp. rise Current :	1,600	mA (max)
Saturation current typical : 30% reduction from initial L value.		
Temp rise Current typical : Temperature will rise by 40 deg C		



The data is reference only. Electrical characteristics vary depending on environment or measurement condition. TAIYO YUDEN reserves the right to make change to the data at any time without notice. Before making final selection, please check product specification.

The products are tested based on the test conditions and methods defined in AEC-Q200. Please consult with TAIYO YUDEN for the details of the product specification and AEC-Q200 test results, etc., and please review and approve TAIYO YUDEN's product specification before ordering.

Please read this notice before using the TAIYO YUDEN products.



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Please do not incorporate our products into any equipment requiring high levels of safety and/or reliability (e.g., aerospace equipment, aviation equipment, medical equipment classified as Class IV by IMDRF, nuclear control equipment, undersea equipment, military equipment).
When our products are used even for high safety and/or reliability-required devices or circuits of general electronic equipment, it is strongly recommended to perform a thorough safety evaluation prior to use of our products and to install a protection circuit as necessary.
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