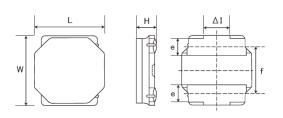
# **Spec Sheet**

SMD Power Inductors for Automotive (BODY & CHASSIS, INFOTAINMENT) Applications (NR series S type)

# NRS6028T101MMGJV



#### Features

- Item Summary
  - 100uH±20%, 0.65A, 6.0x6.0x2.8mm
- Lifecycle Stage
- Mass Production (Preferred)
- AEC-Q200 qualified
- Standard packaging quantity (minimum)
  - Taping Embossed 2000pcs

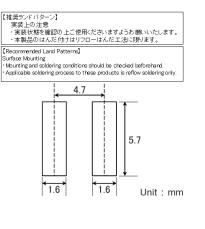
#### Products characteristics table

Inductance	100 uH $\pm$ 20 %	
Case Size (mm)	6.0x6.0	
Rated Current (max)	0.65 A	
Saturation Current (max)	0.65 A (⊿L=30%)	
Saturation Current (typ)	0.75 A (⊿L=30%)	
Temperature Rise Current (max)	0.66 A (⊿T=40℃)	
Temperature Rise Current (typ)	0.75 A (⊿T=40℃)	
DC Resistance (max)	0.78 Ω	
DC Resistance (typ)	0.6 Ω	
LQ Measuring Frequency	100 kHz	
Self Resonant Frequency (min)	3 MHz	
Operating Temp. Range	-40 to +125 ℃ (Including-self-generated heat)	
Temperature characteristic (Inductance change)	± 20 %	
RoHS Compliance (10 subst.)	Yes	
REACH Compliance (209 subst.)	Yes	
Halogen Free	Yes	
Soldering	Reflow	

#### External Dimensions

Dimension L	$6.0 \pm 0.2 \text{ mm}$
Dimension W	6.0 ±0.2 mm
Dimension H	Max 2.8 mm
Dimension e	1.35 ±0.2 mm
Dimension f	4.0 ±0.2 mm
Dimension ΔI	Typ 2.3 mm

## Recommended Land Patterns

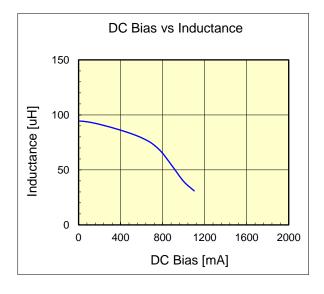


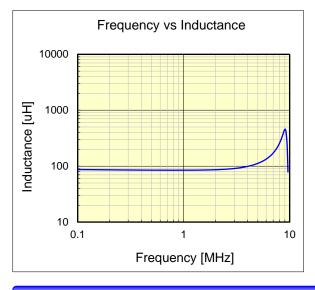
The data is reference only. Electrical characteristics vary depending on environment or measurement condition. TAIYO YUDEN reserves the right to make change to the data at any time without notice. Before making final selection, please check product specification. 2021.07.01

**TAIYO YUDEN** 

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

Dimension	unit : mm	unit : inch
Length :	6.0 +/- 0.2	(0.236 +/- 0.008)
Width :	6.0 +/- 0.2	(0.236 +/- 0.008)
Height :	2.8 max.	(0.11 max.)
Inductance : DC Resistance : Saturation Current : Temp. rise Current :	100 uH 0.6 / 0.78 650 mA (m 660 mA (m	ax)
	• •	
Temp rise Current	typical : Temperatu	re will rise by 40 deg C
	Length : Width : Height : Inductance : DC Resistance : Saturation Current : Temp. rise Current : Saturation current	Length : 6.0 + / - 0.2 Width : 6.0 + / - 0.2 Height : 2.8 max. Inductance : 100 uH DC Resistance : 0.6 / 0.78 Saturation Current : 650 mA ( m.





DC Bias vs Temperature 60 Self-temperature rise [deg] 50 40 30 20 10 0 200 400 600 800 1000 0 DC Bias [mA]

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.

# REMINDERS

- Please conduct validation and verification of our products in actual condition of mounting and operating environment before using our products.
- The product listed in this spec sheet is intended for use in general electronic equipment (e.g., AV equipment, OA equipment, home electric appliances, office equipment, information and communication equipment), medical equipment classified as Class I or II by IMDRF, industrial equipment, and automotive interior applications, etc. Please be sure to contact TAIYO YUDEN for further information before using the product for any equipment which may directly cause loss of human life or bodily injury (e.g., transportation equipment including, without limitation, automotive powertrain control system, train control system, and ship control system, traffic signal equipment, medical equipment classified as Class III by IMDRF).

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).

\*Note: There is a possibility that our products can be used only for aviation equipment that does not directly affect the safe operation of aircraft (e.g., in-flight entertainment, cabin light, electric seat, cooking equipment) if such use meets requirements specified separately by TAIYO YUDEN. Please be sure to contact TAIYO YUDEN for further information before using our products for such aviation 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.

Please note that unless you obtain prior written consent of TAIYO YUDEN, TAIYO YUDEN shall not be in any way responsible for any damages incurred by you or third parties arising from use of the product listed in this spec sheet for any equipment requiring inquiry to TAIYO YUDEN or prohibited for use by TAIYO YUDEN as described above.

- Information contained in this spec sheet is intended to convey examples of typical performances and/or applications of our products and is not intended to make any warranty with respect to the intellectual property rights or any other related rights of TAIYO YUDEN or any third parties nor grant any license under such rights.
- Please note that the scope of warranty for our products is limited to the delivered our products themselves and TAIYO YUDEN shall not be in any way responsible for any damages resulting from a fault or defect in our products. Notwithstanding the foregoing, if there is a written agreement (e.g., supply and purchase agreement, quality assurance agreement) signed by TAIYO YUDEN and your company, TAIYO YUDEN will warrant our products in accordance with such agreement.
- The contents of this spec sheet are applicable to our products which are purchased from our sales offices or authorized distributors (hereinafter "TAIYO YUDEN's official sales channel"). Please note that the contents of this spec sheet are not applicable to our products purchased from any seller other than TAIYO YUDEN's official sales channel.

#### Caution for Export

The product listed in this spec sheet may require specific procedures for export according to "U.S. Export Administration Regulations", "Foreign Exchange and Foreign Trade Control Law" of Japan, and other applicable regulations. Should you have any questions on this matter, please contact our sales staff.



单击下面可查看定价,库存,交付和生命周期等信息

>>Taiyo Yuden(太阳诱电)