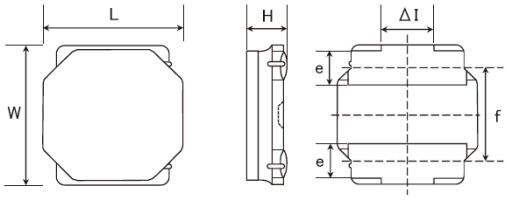
# Spec Sheet

SMD Power Inductors for Automotive / Industrial Applications (NR series S type)

# NRS6028T6R8MMGJV




## Features

- Item Summary

  6.8uH±20%, 2.5A, 6.0x6.0x2.8mm
- Lifecycle Stage

  Mass Production
- AEC-Q200 qualified
- Standard packaging quantity (minimum)

  Taping Embossed 2000pcs

## Products characteristics table

| | |
|---|---|
| Inductance | 6.8 uH ± 20 % |
| Case Size (mm) | 6.0x6.0 |
| Rated Current (max) | 2.5 A |
| Saturation Current (max) | 2.6 A |
| Temperature Rise Current (max) | 2.5 A |
| DC Resistance (max) | 55.9 mΩ |
| DC Resistance (typ) | 43 mΩ |
| LQ Measuring Frequency | 100 kHz |
| Self Resonant Frequency (min) | 25 MHz |
| Operating Temp. Range | -40 to +125 ℃<br>(Including-self-generated heat) |
| Temperature characteristic<br>(Inductance change) | ± 20 % |
| RoHS2 Compliance (10 subst.) | Yes |
| REACH Compliance (173 subst.) | Yes |
| Halogen Free | Yes |
| Soldering | Reflow |

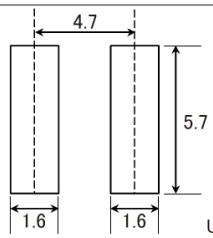
## External Dimensions

| | |
|---|---|
| Dimension L | 6.0 ±0.2 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

【推奨ランドパターン】
実装上の注意
・実装状態を確認の上ご使用くださいますようお願いいたします。
・本製品のはんだ付けはリフローはんだ工法に限ります。

【Recommended Land Patterns】
Surface Mounting
・Mounting and soldering conditions should be checked beforehand.
・Applicable soldering process to these products is reflow soldering only.




Unit : mm

2017.04.30

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

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

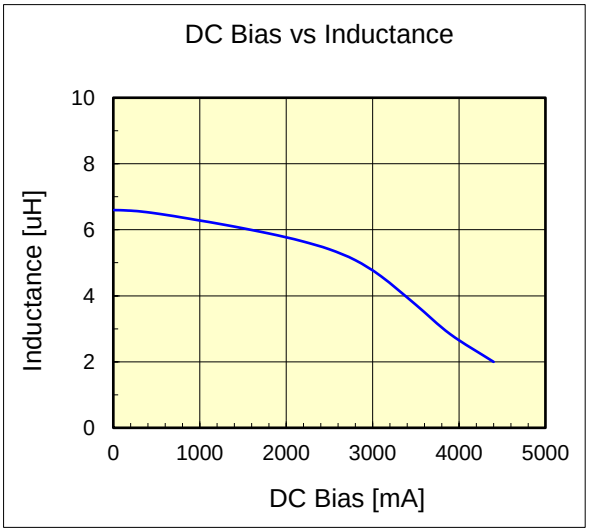
## NRS6028T6R8MMGJV

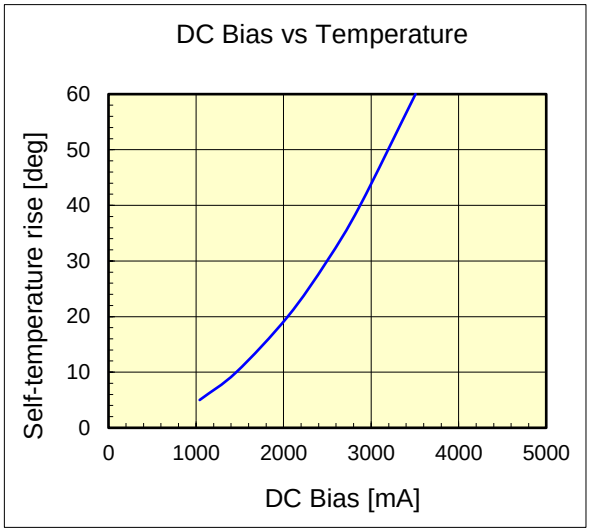
**AEC-Q200 qualified**

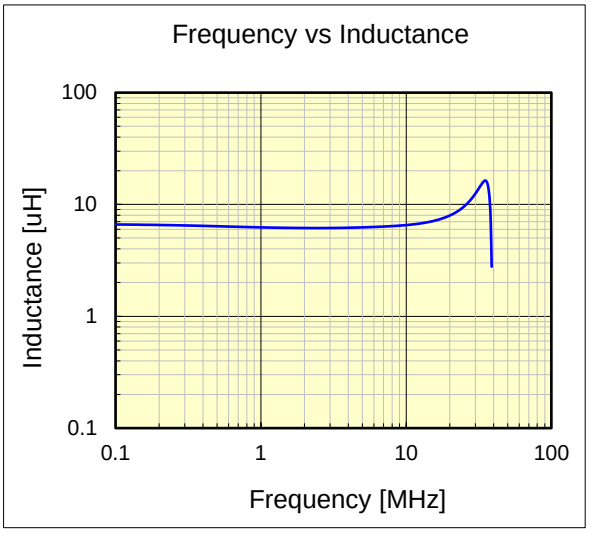
| Dimension | unit : mm | unit : inch |
|---|---|---|
| Length : | 6.0 + / - 0.2 | ( 0.236 + / - 0.008 ) |
| Width : | 6.0 + / - 0.2 | ( 0.236 + / - 0.008 ) |
| Height : | 2.8 max. | ( 0.11 max. ) |

| | | |
|---|---|---|
| Inductance : | 6.8 uH | ( test freq at 0.1MHz ) |
| DC Resistance : | 0.043 / 0.0559 | ohm ( typ / max ) |
| Saturation Current : | 2,600 mA ( max ) | |
| Temp. rise Current : | 2,500 mA ( max ) | |

Saturation current typical : 30% reduction from initial L value.
Temp rise Current typical : Temperature will rise by 40 deg C

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*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.*