

## Inductors

## NRS6028T1R5NMGJ



## ■ Features

- Item Summary  
1.5uH±30%, 4.2A, 6.0x6.0x2.8mm
- Lifecycle Stage  
New PN available
- Standard packaging quantity (minimum)  
Taping Embossed 2000pcs

## ■ Products characteristics table

|   |   |
|---|---|
| Inductance  | 1.5 uH ± 30 %   |
| Case Size (mm)                                    | 6.0x6.0   |
| Rated Current (max)                               | 4.2 A   |
| Saturation Current (max)                          | 5.1 A ( $\Delta L=30\%$ )   |
| Saturation Current (typ)                          | 6.1 A ( $\Delta L=30\%$ )   |
| Temperature Rise Current (max)                    | 4.2 A ( $\Delta T=40^{\circ}\text{C}$ )                           |
| Temperature Rise Current (typ)                    | 4.7 A ( $\Delta T=40^{\circ}\text{C}$ )                           |
| DC Resistance (max)                               | 20.8 m $\Omega$   |
| DC Resistance (typ)                               | 16 m $\Omega$   |
| LQ Measuring Frequency                            | 100 kHz   |
| Self Resonant Frequency (min)                     | 78 MHz  |
| Operating Temp. Range                             | -25 to +125 $^{\circ}\text{C}$<br>(Including-self-generated heat) |
| Temperature characteristic<br>(Inductance change) | $\pm 20 \%$   |
| RoHS Compliance (10 subst.)                       | Yes   |
| REACH Compliance (223 subst.)                     | Yes   |
| Halogen Free                                      | Yes   |
| Soldering   | Reflow  |

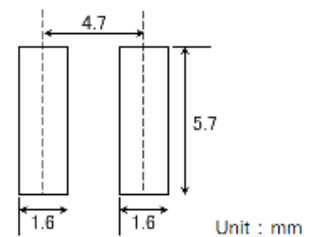
## ■ External Dimensions

|                      |              |
|----------------------|--------------|
| 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 $\Delta I$ | Typ 2.3 mm   |

## ■ Recommended Land Patterns

【推奨のランドパターン】  
 二層基板推奨  
 ・銅箔厚さ0.035mm以上0.05mm以下を推奨（銅箔厚さ0.025mmは、銅箔厚さ0.035mmと同等と見做す）  
 ・銅箔厚さ0.025mm以下は、銅箔厚さ0.035mmと同等と見做す

【Printed Circuit Board Pattern】  
 Surface Mounting  
 ・High temperature reflow soldering is recommended for these products.  
 ・Apply the soldering process to these products in reflow soldering only.



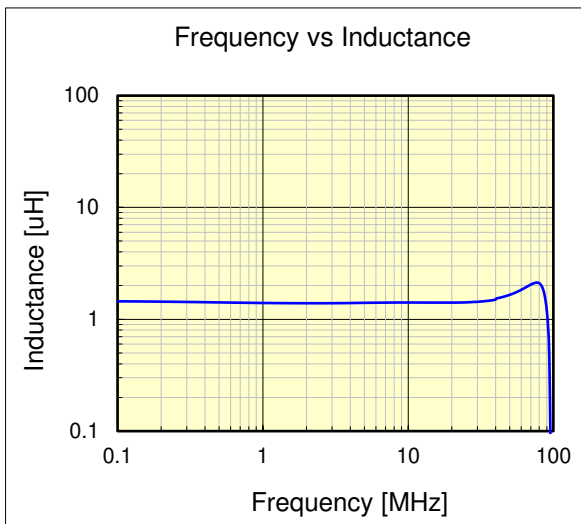
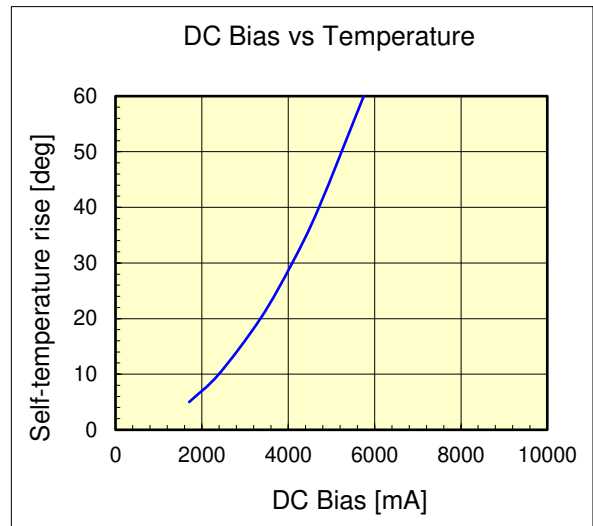
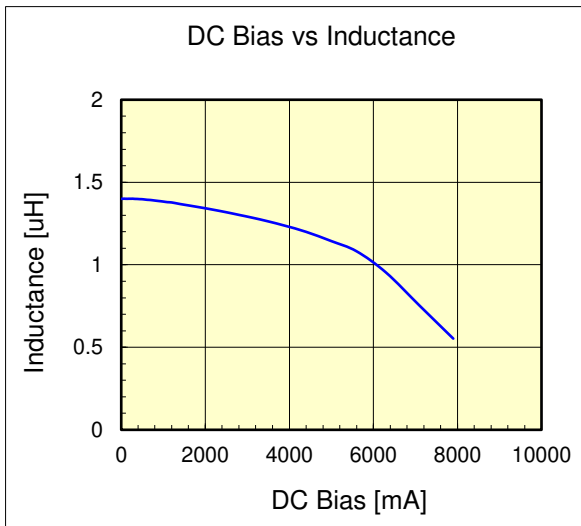
SMD Power Inductors (NR series S type)

NRS6028T1R5NMGJ



| 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 : 1.5 uH ( test freq at 0.1MHz )  
 DC Resistance : 0.016 / 0.0208 ohm ( typ / max )  
 Saturation Current : 5,100 mA ( max )  
 Temp. rise Current : 4,200 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.

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).  
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