

## Inductors

## NRS5040T470MMGJ



## ■ Features

- Item Summary  
47 $\mu$ H $\pm$ 20%, 0.9A, 4.9x4.9x4.0mm
- Lifecycle Stage  
New PN available
- Standard packaging quantity (minimum)  
Taping Embossed 1500pcs

## ■ Products characteristics table

Inductance	47 $\mu$ H $\pm$ 20 %
Case Size (mm)	4.9x4.9
Rated Current (max)	0.9 A
Saturation Current (max)	1.1 A ( $\Delta$ L=30%)
Saturation Current (typ)	1.15 A ( $\Delta$ L=30%)
Temperature Rise Current (max)	0.9 A ( $\Delta$ T=40°C)
Temperature Rise Current (typ)	0.95 A ( $\Delta$ T=40°C)
DC Resistance (max)	0.403 $\Omega$
DC Resistance (typ)	0.31 $\Omega$
LQ Measuring Frequency	100 kHz
Self Resonant Frequency (min)	6 MHz
Operating Temp. Range	-25 to +125 °C (Including-self-generated heat)
Temperature characteristic (Inductance change)	$\pm$ 20 %
RoHS Compliance (10 subst.)	Yes
REACH Compliance (223 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

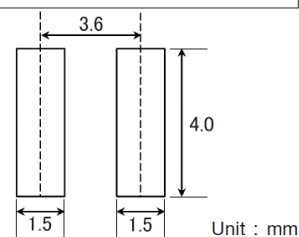
## ■ External Dimensions

Dimension L	4.9 $\pm$ 0.2 mm
Dimension W	4.9 $\pm$ 0.2 mm
Dimension H	Max 4.0 mm
Dimension e	1.2 $\pm$ 0.2 mm
Dimension f	3.3 $\pm$ 0.2 mm
Dimension $\Delta$ I	Typ 1.3 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.



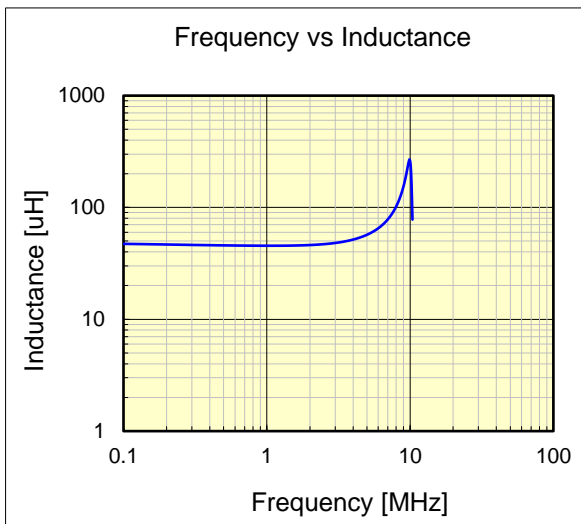
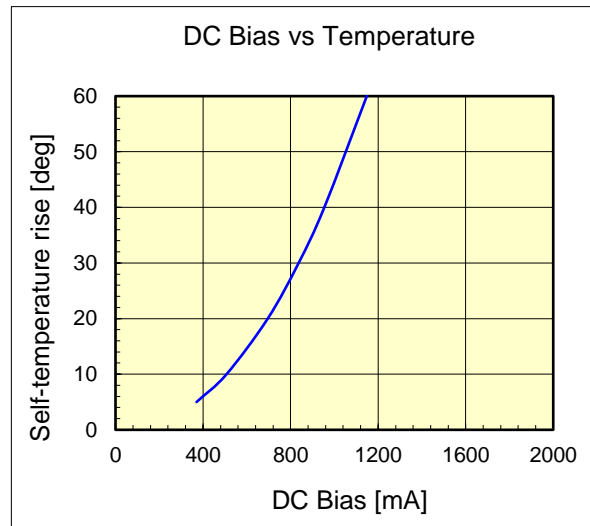
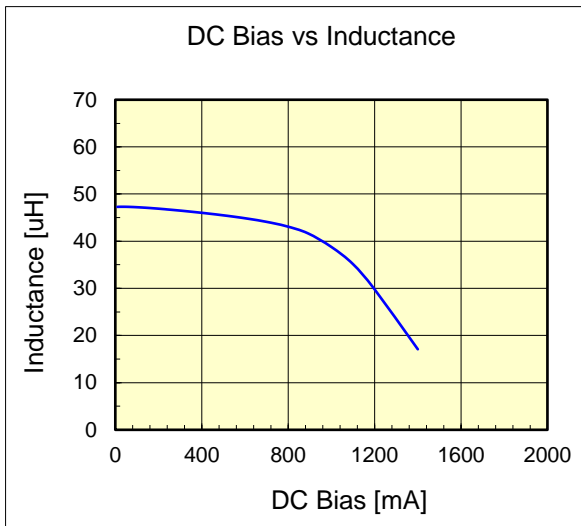
SMD Power Inductors (NR series S type)

**NRS5040T470MMGJ**



Dimension	unit : mm	unit : inch
Length :	4.9 +/- 0.2	( 0.193 +/- 0.008 )
Width :	4.9 +/- 0.2	( 0.193 +/- 0.008 )
Height :	4.0 max.	( 0.157 max. )

Inductance :	47	uH ( test freq at 0.1MHz )
DC Resistance :	0.31 / 0.403	ohm ( typ / max )
Saturation Current :	1,100	mA ( max )
Temp. rise Current :	900	mA ( max )
Saturation current typical : 30% reduction from initial L value.		
Temp rise Current typical : Temperature will rise by 40 deg C		



Please read this notice before using the TAIYO YUDEN products.



## REMINDERS

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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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