

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



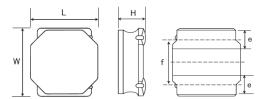




### **Spec Sheet**

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

# NRS4012T100MDGJV



#### Features

- Item Summary 10uH±20%, 0.8A, 4.0x4.0x1.2mm
- Lifecycle Stage
  - Mass Production
- AEC-Q200 qualified
- Standard packaging quantity (minimum)

Taping Embossed 4500pcs

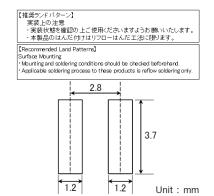
#### Products characteristics table

Inductance	10 uH ± 20 %
Case Size (mm)	4.0x4.0
Rated Current (max)	0.8 A
Saturation Current (max)	0.8 A
Temperature Rise Current (max)	1.1 A
DC Resistance (max)	0.204 Ω
DC Resistance (typ)	0.17 Ω
LQ Measuring Frequency	100 kHz
Self Resonant Frequency (min)	30 MHz
Operating Temp. Range	-40 to +125 ℃ (Including-self-generated heat)
Temperature characteristic (Inductance change)	± 20 %
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

#### ■ External Dimensions

Dimension L	4.0 ±0.2 mm
Dimension W	4.0 ±0.2 mm
Dimension H	Max 1.2 mm
Dimension e	1.1 ±0.2 mm
Dimension f	2.5 ±0.2 mm

## Recommended Land Patterns



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.

unit: inch

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

## NRS4012T100MDGJV

DMDGJV

Length: 4.0 + / - 0.2 (0.157 + / - 0.008)

Width: 4.0 + / - 0.2 (0.157 + / - 0.008)

Height: 1.2 max. (0.047 max.)

Dimension

Inductance: 10 uH (test freq at 0.1MHz)
DC Resistance: 0.17 / 0.204 ohm (typ/max)

unit : mm

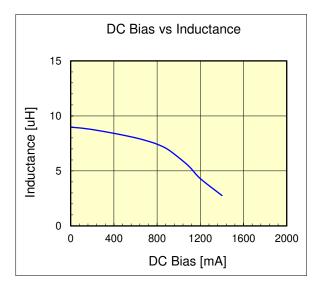
Saturation Current: 800 mA (max) Temp. rise Current: 1,100 mA (max)

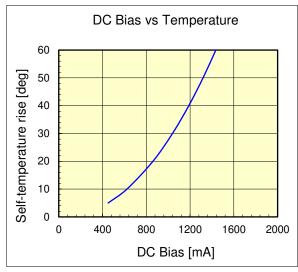
Saturation current typical: 30% reduction from initial L value.

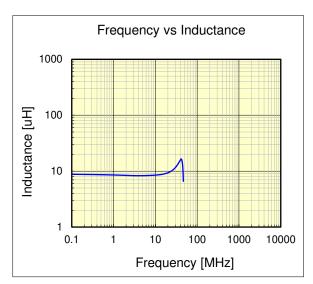
Temp rise Current typical: Temperature will rise by 40 deg C



AEC-Q200 qualified







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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.