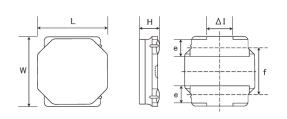
Spec Sheet

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

NRS5040T2R2NMGJV



Features

- Item Summary
 - 2.2uH±30%, 3.7A, 4.9x4.9x4.1mm
- Lifecycle Stage
- Mass Production
- AEC-Q200 qualified
- Standard packaging quantity (minimum)
 - Taping Embossed 1500pcs

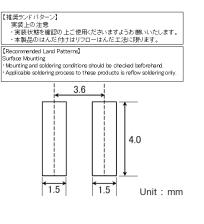
Products characteristics table

Inductance	2.2 uH ± 30 %
Case Size (mm)	4.9x4.9
Rated Current (max)	3.7 A
Saturation Current (max)	5 A
Temperature Rise Current (max)	3.7 A
DC Resistance (max)	28.6 mΩ
DC Resistance (typ)	22 mΩ
LQ Measuring Frequency	100 kHz
Self Resonant Frequency (min)	42 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	4.9 ±0.2 mm
Dimension W	4.9 ±0.2 mm
Dimension H	Max 4.1 mm
Dimension e	1.2 ±0.2 mm
Dimension f	3.3 ±0.2 mm
Dimension ∆I	Typ 1.3 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 Date at any time without notice. Before making final selection, please check product specification. 2017.05.02

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unit : inch (0.193 +/- 0.008)

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

Dimension

Length :

NRS5040T2R2NMGJV

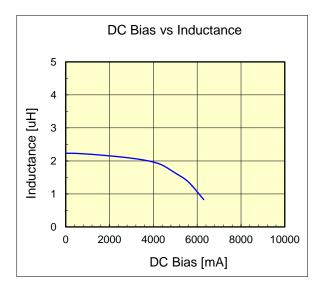


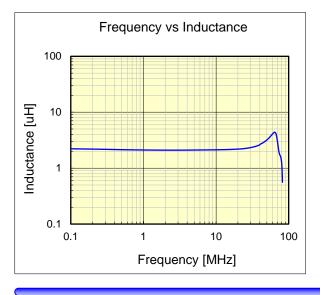
AEC-Q200 qualified

Width : 4.9 +/- 0.2 (0.193 + / - 0.008)Height : (0.161 4.1 max. max.) Inductance : 2.2 uН (test freq at 0.1MHz) DC Resistance : 0.022 / 0.0286 ohm (typ / max) Saturation Current : 5,000 mA (max) Temp. rise Current : 3,700 mA (max) Saturation current typical : 30% reduction from initial L value. Temp rise Current typical : Temperature will rise by 40 deg C

unit : mm

4.9 +/- 0.2





DC Bias vs Temperature 60 Self-temperature rise [deg] 50 40 30 20 10 0 2000 3000 4000 0 1000 5000 DC Bias [mA]

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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.