

# Spec Sheet

High Frequency Multilayer Chip Inductors for Automotive (BODY & CHASSIS, INFOTAINMENT) Applications (HK series)

## HK10053N9S-TV



### ■ Features

- Item Summary  
3.9nH $\pm$ 0.3nH, 0.3A, 0402/1005 (EIA/JIS)
- Lifecycle Stage  
Mass Production (Preferred)
- AEC-Q200 qualified
- Standard packaging quantity (minimum)  
Taping Paper 10000pcs

### ■ Products characteristics table

Inductance	3.9 nH $\pm$ 0.3nH
Case Size (EIA/JIS)	0402/1005
Rated Current (max)	0.3 A
Rated Current (max)(-55 to 85°C)	0.5 A
DC Resistance (max)	0.21 $\Omega$
DC Resistance (typ)	0.12 $\Omega$
Q (min)	8
Q (typ)	10
LQ Measuring Frequency	100 MHz
Self Resonant Frequency (min)	4000 MHz
Self Resonant Frequency (typ)	7000 MHz
Operating Temp. Range	-55 to +125 °C
RoHS Compliance (10 subst.)	Yes
REACH Compliance (209 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

### ■ External Dimensions

Dimension L	1.0 $\pm$ 0.05 mm
Dimension W	0.5 $\pm$ 0.05 mm
Dimension T	0.5 $\pm$ 0.05 mm
Dimension e	0.25 $\pm$ 0.1 mm

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.

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Please read this notice before using the TAIYO YUDEN products.



## REMINDERS

- Please conduct validation and verification of our products in actual condition of mounting and operating environment before using our products.
- The product listed in this spec sheet is intended for use in general electronic equipment (e.g., AV equipment, OA equipment, home electric appliances, office equipment, information and communication equipment), medical equipment classified as Class I or II by IMDRF, industrial equipment, and automotive interior applications, etc. Please be sure to contact TAIYO YUDEN for further information before using the product for any equipment which may directly cause loss of human life or bodily injury (e.g., transportation equipment including, without limitation, automotive powertrain control system, train control system, and ship control system, traffic signal equipment, medical equipment classified as Class III by IMDRF).

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).

\*Note: There is a possibility that our products can be used only for aviation equipment that does not directly affect the safe operation of aircraft (e.g., in-flight entertainment, cabin light, electric seat, cooking equipment) if such use meets requirements specified separately by TAIYO YUDEN. Please be sure to contact TAIYO YUDEN for further information before using our products for such aviation 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.

Please note that unless you obtain prior written consent of TAIYO YUDEN, TAIYO YUDEN shall not be in any way responsible for any damages incurred by you or third parties arising from use of the product listed in this spec sheet for any equipment requiring inquiry to TAIYO YUDEN or prohibited for use by TAIYO YUDEN as described above.

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- Caution for Export  
The product listed in this spec sheet may require specific procedures for export according to "U.S. Export Administration Regulations", "Foreign Exchange and Foreign Trade Control Law" of Japan, and other applicable regulations. Should you have any questions on this matter, please contact our sales staff.