

# HI 1005 Series

## High Frequency Multilayer Chip Inductors

### Features

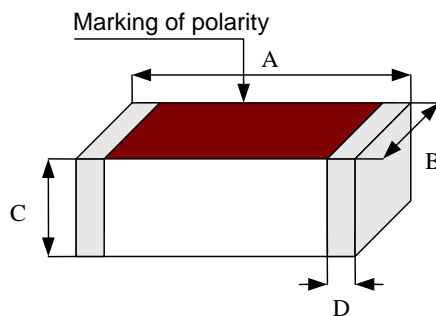
- ❖ Monolithic structure ensuring high performance and reliability.
- ❖ High frequency applications up to 6GHz.

### Applications

- ❖ RF modules for telecommunication systems including GSM, PCS, DECT, WLAN, Bluetooth, etc.



### Shape and Dimensions



Unit : mm (inch)

TYPE	EIA Code	A	B	C	D
1005	0402	1.00 ±0.10	0.50 ±0.10	0.50 ±0.10	0.23 ±0.10
		(.040 ±.004)	(.020 ±.004)	(.020 ±.004)	(.0092 ±.004)

\* Marking of polarity indicating the magnetic flux direction is taped upward.

### Part Number

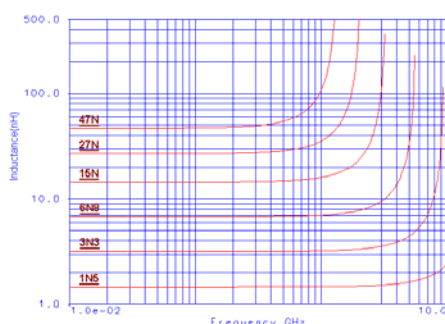
**HI**   **1005**   -   **1**   **C**   **4N7**   **□**   **□**   **□**

①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧

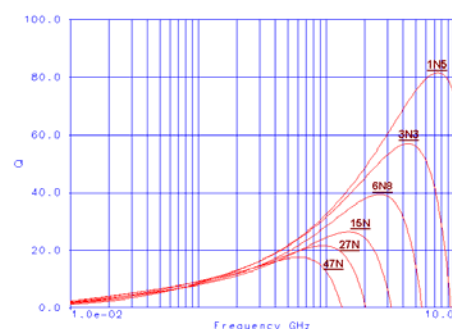
① Type	HI :High Frequency Inductors	② Dimensions ( L x W )	1.0 x 0.5 mm
③ Circuit	1 : Single	④ Material Code	B (lead-containing) C (lead-free)
⑤ Inductance	4N7=4.7nH 47N=47nH R10=100nH	⑥ Tolerance	S:±0.3nH, J:±5%,     K:±10%
⑦ Marking	M: With marking	⑧ Packaging	T: Tape & Reel B: Bulk

### Typical Electrical Characteristics

L vs. Frequency



Q vs. Frequency



## Specifications

Part Number	Inductance (nH)	Q Min.	L/Q Freq. (MHz)	R <sub>DC</sub> ( ) Max.	S.R.F. (MHz) Typ.	I <sub>DC</sub> (mA) Max.	Q'ty/ Reel (pcs)
HI1005-1_1N0_M_	1.0 ± 0.3	8	100	0.12	>15000	300	10,000
HI1005-1_1N2_M_	1.2 ± 0.3	8	100	0.12	>15000	300	
HI1005-1_1N5_M_	1.5 ± 0.3	8	100	0.13	>15000	300	
HI1005-1_1N8_M_	1.8 ± 0.3	8	100	0.14	14000	300	
HI1005-1_2N2_M_	2.2 ± 0.3	8	100	0.16	12000	300	
HI1005-1_2N7_M_	2.7 ± 0.3	8	100	0.17	9500	300	
HI1005-1_3N3_M_	3.3 ± 0.3 or ± 10%	8	100	0.19	8500	300	
HI1005-1_3N9_M_	3.9 ± 0.3 or ± 10%	8	100	0.22	7000	300	
HI1005-1_4N7_M_	4.7 ± 0.3 or ± 10%	8	100	0.24	6000	300	
HI1005-1_5N6_M_	5.6 ± 0.3 or ± 10%	8	100	0.27	5400	300	
HI1005-1_6N8_M_	6.8 ± 5% or ± 10%	8	100	0.32	5000	250	
HI1005-1_8N2_M_	8.2 ± 5% or ± 10%	8	100	0.40	4600	250	
HI1005-1_10N_M_	10 ± 5% or ± 10%	8	100	0.45	3700	250	
HI1005-1_12N_M_	12 ± 5% or ± 10%	8	100	0.50	3200	250	
HI1005-1_15N_M_	15 ± 5% or ± 10%	8	100	0.60	3100	250	
HI1005-1_18N_M_	18 ± 5% or ± 10%	8	100	0.65	2900	200	
HI1005-1_22N_M_	22 ± 5% or ± 10%	8	100	0.80	2100	200	
HI1005-1_27N_M_	27 ± 5% or ± 10%	8	100	0.90	1900	200	
HI1005-1_33N_M_	33 ± 5% or ± 10%	8	100	1.00	1600	200	
HI1005-1_39N_M_	39 ± 5% or ± 10%	8	100	1.20	1400	150	
HI1005-1_47N_M_	47 ± 5% or ± 10%	8	100	1.30	1200	150	
HI1005-1_56N_M_	56 ± 5% or ± 10%	8	100	2.00	1100	150	
HI1005-1_68N_M_	68 ± 5% or ± 10%	8	100	2.20	1000	100	
HI1005-1_82N_M_	82 ± 5% or ± 10%	8	100	2.50	900	100	
HI1005-1_R10_M_	100 ± 5% or ± 10%	8	100	2.50	850	100	
HI1005-1_R12_M_	120 ± 5% or ± 10%	8	100	2.50	750	100	

Operating Temperature Range : -40 ~ +100 °C

Storage Temperature Range : +5 ~ +35 °C, Humidity 45~75%RH

Storage Period: 12 months max.

Test Method : L and Q : HP 4291B (+16192A)  
 S.R.F. (Self Resonant Frequency) : HP 8722D  
 R<sub>DC</sub> (DC Resistance) : HP 4338B  
 I<sub>DC</sub> (Rated Current) : HP 4284A

## Notes

❖ The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

### Advanced Ceramic X Corp.

16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan

TEL:886-3-5987008 FAX:886-3-5987001

E-mail: [acx@acxc.com.tw](mailto:acx@acxc.com.tw)

<http://www.acxc.com.tw>