

HI 2012 Series

High Frequency Multilayer Chip Inductors

Features

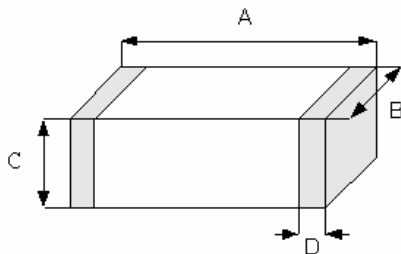
- ❖ Monolithic structure ensuring high performance and reliability.
- ❖ High frequency applications up to 6GHz.

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
2012	0805	2.00 ±0.20	1.20 ±0.20	0.85 ±0.20	0.50 ±0.30
		(.079 ±.008)	(.047 ±.008)	(.033 ±.008)	(.020 ±.012)

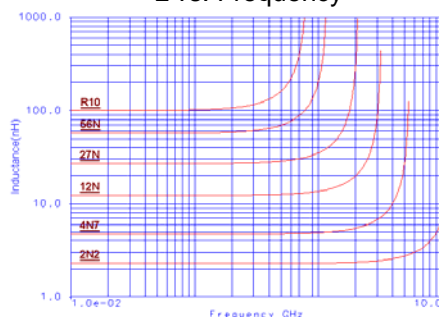
Part Number

HI 2012 - 1 C 4N7 □ □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

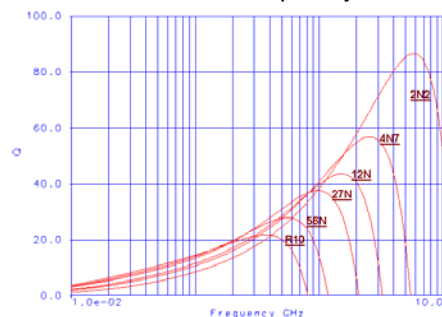
① Type	HI : High Frequency Inductors	② Dimensions (L x W)	2.0 x 1.2 mm
③ Circuit	1 : Single	④ Material Code	B (lead-containing) C (lead-free)
⑤ Inductance	4N7=4.7nH 47N=47nH R10=100nH	⑥ Tolerance	S:±0.3nH, J:±5%, K:±10%
⑦ Marking	N: No marking	⑧ Packaging	T: Tape & Reel B: Bulk

Typical Electrical Characteristics

L vs. Frequency



Q vs. Frequency



Specifications

Part Number	Inductance (nH)	Q Min.	L/Q Freq. (MHz)	R _{DC} () Max.	S.R.F. (MHz) Typ.	I _{DC} (mA) Max.	Q'ty/ Reel (pcs)
HI2012-1_1N2_N_	1.2 ± 0.3	10	100	0.10	>6000	600	4,000
HI2012-1_1N5_N_	1.5 ± 0.3	10	100	0.10	>6000		
HI2012-1_1N8_N_	1.8 ± 0.3	10	100	0.10	>6000		
HI2012-1_2N2_N_	2.2 ± 0.3	10	100	0.10	>6000		
HI2012-1_2N7_N_	2.7 ± 0.3	12	100	0.12	>6000		
HI2012-1_3N3_N_	3.3 ± 0.3 or ± 10%	12	100	0.13	>6000		
HI2012-1_3N9_N_	3.9 ± 0.3 or ± 10%	12	100	0.15	5600		
HI2012-1_4N7_N_	4.7 ± 0.3 or ± 10%	12	100	0.20	5500		
HI2012-1_5N6_N_	5.6 ± 0.3 or ± 10%	12	100	0.23	4700		
HI2012-1_6N8_N_	6.8 ± 5% or ± 10%	15	100	0.25	3900		
HI2012-1_8N2_N_	8.2 ± 5% or ± 10%	15	100	0.28	3200		
HI2012-1_10N_N_	10 ± 5% or ± 10%	15	100	0.30	3100		
HI2012-1_12N_N_	12 ± 5% or ± 10%	15	100	0.35	2800		
HI2012-1_15N_N_	15 ± 5% or ± 10%	15	100	0.40	2400		
HI2012-1_18N_N_	18 ± 5% or ± 10%	15	100	0.45	2100		
HI2012-1_22N_N_	22 ± 5% or ± 10%	15	100	0.50	2000		
HI2012-1_27N_N_	27 ± 5% or ± 10%	15	100	0.55	1800		
HI2012-1_33N_N_	33 ± 5% or ± 10%	15	100	0.60	1700		
HI2012-1_39N_N_	39 ± 5% or ± 10%	18	100	0.65	1400		
HI2012-1_47N_N_	47 ± 5% or ± 10%	18	100	0.70	1200		
HI2012-1_56N_N_	56 ± 5% or ± 10%	18	100	0.75	1000		
HI2012-1_68N_N_	68 ± 5% or ± 10%	18	100	0.80	900		
HI2012-1_82N_N_	82 ± 5% or ± 10%	18	100	0.85	900		
HI2012-1_R10_N_	100 ± 5% or ± 10%	18	100	0.90	700		
HI2012-1_R12_N_	120 ± 5% or ± 10%	13	50	0.95	600		
HI2012-1_R15_N_	150 ± 5% or ± 10%	13	50	1.00	500		
HI2012-1_R18_N_	180 ± 5% or ± 10%	13	50	1.10	430		
HI2012-1_R22_N_	220 ± 5% or ± 10%	12	50	1.20	400		
HI2012-1_R27_N_	270 ± 5% or ± 10%	12	50	1.30	340		
HI2012-1_R33_N_	330 ± 5% or ± 10%	12	50	1.50	320		
HI2012-1_R39_N_	390 ± 5% or ± 10%	10	50	1.60	270		
HI2012-1_R47_N_	470 ± 5% or ± 10%	10	50	1.80	250		
HI2012-1_R56_N_	560 ± 5% or ± 10%	10	50	2.50	230		
HI2012-1_R68_N_	680 ± 5% or ± 10%	10	50	3.00	180		

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 (+16193A)
 S.R.F. (Self Resonant Frequency) : HP 8722D
 R_{DC} (DC Resistance) : HP 4338B
 I_{DC} (Rated Current) : HP 4284A

Notes

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

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