DARFON

Multi-Layer High Frequency Inductors (IQ & HI Series)

ORDERING CODE

HI 1005 1N5 S T

PRODUCT CODE

HI :Standard type
IQ: High Q type

DIMENSION (L X W)

Code	Dimension	EIA
0402	0.4 X 0.2 mm	01005
0603	0.6 X 0.3 mm	0201
1005	1.0 X 0.5 mm	0402
1608	1.6 X 0.8 mm	0603

INDUCTANCE CODE

Code	1N5	15N	R15
Inductance (nH)	1.5	15	150

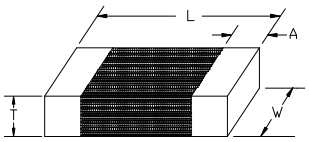
TOLERANCE CODE

B = ± 0.1 nH (for IQ series)
D= ± 0.1 nH (for HI series)
C = ± 0.2 nH
S = ± 0.3 nH
G = ± 2%
K = ± 10%
H= ± 3%
J= ± 5%

PACKAGING CODE

T = Tape

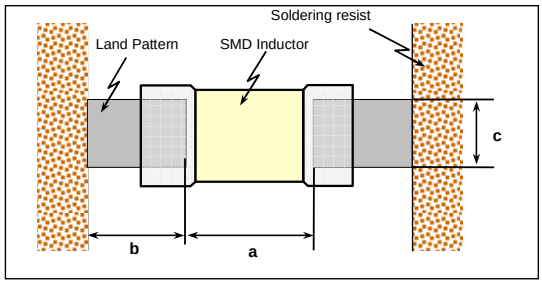
Standard External Dimensions



Unit: mm

Series	L	W	T	A (Min/Max)	Packing Quantity (pcs/reel)
					Paper Tape
IQ0402 (01005)	0.40±0.02	0.20±0.02	0.20±0.02	0.07/0.13	20,000
IQ0603 (0201)	0.60±0.03	0.30±0.03	0.30±0.03	0.10/0.20	15,000
HI0603 (0201)	0.60±0.03	0.30±0.03	0.30±0.03	0.10/0.20	15,000
HI1005 (0402)	1.00±0.05	0.50±0.05	0.50±0.05	0.10/0.30	10,000
HI1608 (0603)	1.60±0.15	0.80±0.15	0.80±0.15	0.20/0.60	4,000

Recommended Pad Dimensions



Size mm (EIA)	L x W (mm)	a (mm)	b (mm)	c (mm)
0402 (01005)	0.40*0.20	0.15 to 0.25	0.10 to 0.20	0.15 to 0.30
0603 (0201)	0.60*0.30	0.15 to 0.35	0.20 to 0.30	0.25 to 0.30
1005 (0402)	1.00*0.50	0.30 to 0.50	0.35 to 0.45	0.40 to 0.50
1608 (0603)	1.60*0.80	0.70 to 1.00	0.60 to 0.80	0.70 to 0.80

High Q Type (IQ Series)

■Feature

1. For high frequency application
2. Tight tolerance physical dimensions
3. Tight Inductance tolerance, Excellent Q and Guaranteed SRF range
4. RoHS compliant

■Application

For high frequency application: cellular phone, WLAN, PHS, EMI countermeasure in high frequency circuits and computer communication etc.

■Part Numbers & Characteristic

- **IQ0402 series (EIA 01005)**

Ordering Code	Inductance (nH)	Available Tolerance	Q (500MHz)		Measuring Frequency	Self-Resonance Frequency	DC Resistance	Rated Current	Packing Amount
			Min.	Typ.	(MHz)	MHz (Min.)	Ω (Max.)	mA(Max.)	kPcs
IQ04021N0□T	1.0	±0.3nH	8	12	500	10,000	0.09	470	20 (W8P2)
IQ04021N1□T	1.1	±0.3nH	8	12	500	10,000	0.11	430	
IQ04021N2□T	1.2	±0.3nH	8	12	500	10,000	0.11	430	
IQ04021N3□T	1.3	±0.3nH	8	11	500	10,000	0.13	390	
IQ04021N5□T	1.5	±0.3nH	8	11	500	10,000	0.17	340	
IQ04021N6□T	1.6	±0.3nH	8	10	500	10,000	0.19	320	
IQ04021N8□T	1.8	±0.3nH	8	11	500	10,000	0.19	320	
IQ04022N0□T	2.0	±0.3nH	8	10	500	10,000	0.23	290	
IQ04022N2□T	2.2	±0.3nH, ±0.2nH	8	10	500	9,300	0.27	270	
IQ04022N4□T	2.4	±0.3nH	8	10	500	8,300	0.30	260	
IQ04022N7□T	2.7	±0.3nH	8	10	500	8,200	0.30	260	
IQ04023N0□T	3.0	±0.3nH	8	10	500	8,000	0.30	260	
IQ04023N3□T	3.3	±0.3nH	8	10	500	6,700	0.34	240	
IQ04023N6□T	3.6	±0.3nH	8	11	500	6,500	0.35	240	
IQ04023N9□T	3.9	±0.3nH	8	11	500	6,500	0.35	240	
IQ04024N3□T	4.3	±0.3nH	8	11	500	6,200	0.37	230	
IQ04024N7□T	4.7	±0.3nH	8	11	500	5,400	0.42	220	
IQ04025N1□T	5.1	±0.3nH	8	11	500	5,400	0.68	170	
IQ04025N6□T	5.6	±0.3nH	8	11	500	5,400	0.69	170	
IQ04026N2□T	6.2	±5%	8	11	500	5,400	0.91	150	
IQ04026N8□T	6.8	±5%	8	11	500	5,400	0.91	150	
IQ04027N5□T	7.5	±5%	8	11	500	4,700	0.93	150	
IQ04028N2□T	8.2	±5%	8	11	500	4,300	0.97	140	
IQ04029N1□T	9.1	±5%	8	10	500	4,300	0.97	140	
IQ040210N□T	10	±5%	8	11	500	4,000	1.23	130	
IQ040212N□T	12	±5%	8	11	500	3,800	1.23	130	
IQ040215N□T	15	±5%	8	11	500	3,000	1.54	110	
IQ040218N□T	18	±5%	8	12	500	2,800	1.69	110	
IQ040222N□T	22	±5%	8	11	500	2,100	2.01	100	
IQ040227N□T	27	±5%	3	11	500	1,700	2.24	90	

□Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, H=±3%, J=±5%

- **IQ0603 series (EIA 0201)**

Ordering Code	Inductance (nH)	Available Tolerance	Q (500MHz)		Measuring Frequency	Self-Resonance Frequency	DC Resistance	Rated Current	Packing Amount
			Min.	Typ.	(MHz)	MHz (Min.)	Ω (Max.)	mA(Max.)	kPcs
IQ06030N6BT	0.6	±0.1nH	15	>30	500	10,000	0.07	850	
IQ06030N7BT	0.7	±0.1nH	15	>30	500	10,000	0.07	850	
IQ06030N8BT	0.8	±0.1nH	15	>30	500	10,000	0.07	850	
IQ06030N9BT	0.9	±0.1nH	15	>30	500	10,000	0.09	760	
IQ06031N0BT	1.0	±0.1nH	15	>30	500	10,000	0.12	680	
IQ06031N1BT	1.1	±0.1nH	15	>30	500	10,000	0.10	750	
IQ06031N2BT	1.2	±0.1nH	15	30	500	10,000	0.10	750	
IQ06031N3BT	1.3	±0.1nH	15	30	500	10,000	0.12	650	
IQ06031N4BT	1.4	±0.1nH	15	30	500	10,000	0.12	650	
IQ06031N5BT	1.5	±0.1nH	15	30	500	10,000	0.12	650	
IQ06031N6BT	1.6	±0.1nH	15	26	500	10,000	0.14	610	
IQ06031N7BT	1.7	±0.1nH	15	25	500	10,000	0.14	610	
IQ06031N8BT	1.8	±0.1nH	15	25	500	10,000	0.14	610	
IQ06031N9BT	1.9	±0.1nH	15	25	500	10,000	0.14	610	
IQ06032N0BT	2.0	±0.1nH	15	25	500	10,000	0.14	610	
IQ06032N1BT	2.1	±0.1nH	15	25	500	10,000	0.14	610	
IQ06032N2BT	2.2	±0.1nH	15	25	500	10,000	0.14	610	
IQ06032N3BT	2.3	±0.1nH	15	25	500	10,000	0.16	560	
IQ06032N4BT	2.4	±0.1nH	15	25	500	10,000	0.16	560	
IQ06032N5BT	2.5	±0.1nH	15	24	500	8,500	0.16	560	
IQ06032N6BT	2.6	±0.1nH	15	24	500	8,500	0.16	560	
IQ06032N7BT	2.7	±0.1nH	15	23	500	8,500	0.19	510	
IQ06032N8BT	2.8	±0.1nH	15	23	500	8,500	0.20	500	
IQ06032N9BT	2.9	±0.1nH	15	23	500	8,500	0.20	500	15
IQ06033N0BT	3.0	±0.1nH	15	22	500	8,500	0.20	500	
IQ06033N1BT	3.1	±0.1nH	15	22	500	8,500	0.20	500	
IQ06033N2BT	3.2	±0.1nH	15	22	500	8,500	0.20	500	
IQ06033N3BT	3.3	±0.1nH	15	22	500	8,000	0.20	500	
IQ06033N5BT	3.5	±0.1nH	15	22	500	8,000	0.20	500	
IQ06033N6BT	3.6	±0.1nH	15	22	500	7,000	0.20	500	
IQ06033N7BT	3.7	±0.1nH	15	22	500	7,000	0.20	500	
IQ06033N8BT	3.8	±0.1nH	15	22	500	7,000	0.20	500	
IQ06033N9BT	3.9	±0.1nH	15	22	500	7,000	0.25	440	
IQ06034N3HT	4.3	±3%	15	21	500	6,000	0.30	400	
IQ06034N7HT	4.7	±3%	15	21	500	6,000	0.35	370	
IQ06035N1HT	5.1	±3%	15	21	500	6,000	0.35	370	
IQ06035N6HT	5.6	±3%	15	21	500	6,000	0.35	370	
IQ06036N2HT	6.2	±3%	15	21	500	6,000	0.40	340	
IQ06036N8HT	6.8	±3%	15	21	500	6,000	0.50	310	
IQ06037N5HT	7.5	±3%	14	20	500	5,000	0.60	300	
IQ06038N2HT	8.2	±3%	14	20	500	5,000	0.70	250	
IQ06039N1HT	9.1	±3%	14	20	500	4,000	0.70	250	
IQ060310NHT	10.0	±3%	14	20	500	4,000	0.85	220	
IQ060312NHT	12.0	±3%	14	20	500	3,000	0.85	220	
IQ060315NHT	15.0	±3%	14	20	500	3,000	0.90	200	
IQ060318NHT	18.0	±3%	14	19	500	2,500	1.20	180	
IQ060322NHT	22.0	±3%	14	18	500	2,500	1.60	160	

□Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, H=±3%, J=±5%

Standard Type (HI Series)

■Feature

1. For high frequency application
2. Tight tolerance physical dimensions
3. RoHS compliant

■Application

For high frequency application: cellular phone, WLAN, PHS, EMI countermeasure in high frequency circuits and computer communication etc.

■Part Numbers & Characteristic

- **HI0603 series (EIA 0201)**

Ordering Code	Inductance (nH)	Available Tolerance	Q(Min)		Self-Resonance Frequency (MHz)		DC Resistance (Ω)		Rated Current (mA)	Packing Amount
			100MHz.	500MHz	Min.	typ.	Max.	typ.	Max.	kPcs
HI06030N3□T	0.3	±0.1nH	4	11	10,000	>13000	0.07	0.03	850	15
HI06030N4□T	0.4	±0.1nH	4	11	10,000	>13000	0.07	0.04	850	
HI06030N5□T	0.5	±0.1nH	4	11	10,000	>13000	0.08	0.05	800	
HI06030N6□T	0.6	±0.1nH, ±0.2nH	4	12	10,000	>13000	0.08	0.05	800	
HI06030N7□T	0.7	±0.1nH	4	12	10,000	>13000	0.09	0.06	750	
HI06030N8□T	0.8	±0.1nH	4	12	10,000	>13000	0.10	0.07	750	
HI06030N9□T	0.9	±0.1nH	4	12	10,000	>13000	0.10	0.07	750	
HI06031N0□T	1.0	±0.3nH, ±0.2nH, **±0.1nH**	4	12	10,000	>13000	0.14	0.09	600	
HI06031N1□T	1.1	±0.3nH, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.14	0.09	600	
HI06031N2□T	1.2	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.14	0.09	600	
HI06031N3□T	1.3	±0.3nH, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.14	0.10	600	
HI06031N4□T	1.4	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.18	0.10	550	
HI06031N5□T	1.5	**±0.3nH**, ±0.2nH, **±0.1nH**	4	13	10,000	>13000	0.18	0.10	550	
HI06031N6□T	1.6	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.18	0.12	500	
HI06031N7□T	1.7	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.19	0.13	500	
HI06031N8□T	1.8	**±0.3nH**, ±0.2nH, **±0.1nH**	4	13	10,000	>13000	0.19	0.13	500	
HI06031N9□T	1.9	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.20	0.14	450	
HI06032N0□T	2.0	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.20	0.14	450	
HI06032N1□T	2.1	±0.3nH, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.20	0.15	450	
HI06032N2□T	2.2	**±0.3nH**, ±0.2nH, **±0.1nH**	4	13	10,000	>13000	0.22	0.15	450	
HI06032N3□T	2.3	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	>13000	0.22	0.15	450	
HI06032N4□T	2.4	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	11,700	0.24	0.15	450	
HI06032N5□T	2.5	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	11,700	0.24	0.15	450	
HI06032N6□T	2.6	**±0.3nH**, ±0.2nH, ±0.1nH	4	13	10,000	11340	0.25	0.17	450	
HI06032N7□T	2.7	**±0.3nH**, ±0.2nH, **±0.1nH**	5	13	10,000	11,340	0.25	0.17	450	
HI06032N9□T	2.9	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	9,500	11,000	0.28	0.20	450	
HI06033N0□T	3.0	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	9,500	11,000	0.28	0.20	450	
HI06033N1□T	3.1	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	9,500	11,000	0.28	0.20	450	
HI06033N2□T	3.2	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	9,500	10,800	0.30	0.20	450	
HI06033N3□T	3.3	**±0.3nH**, ±0.2nH, **±0.1nH**	5	13	9,500	10,400	0.30	0.20	450	
HI06033N4□T	3.4	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	8,000	10,000	0.30	0.22	400	
HI06033N5□T	3.5	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	8,000	9,000	0.30	0.23	400	
HI06033N6□T	3.6	**±0.3nH**, ±0.2nH, **±0.1nH**	5	13	8,000	9,000	0.30	0.23	400	
HI06033N7□T	3.7	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	8,000	9,000	0.30	0.23	400	
HI06033N8□T	3.8	**±0.3nH**, ±0.2nH, ±0.1nH	5	13	6,500	8,790	0.30	0.23	400	
HI06033N9□T	3.9	**±0.3nH**, ±0.2nH, **±0.1nH**	5	13	6,500	8,790	0.30	0.23	400	
HI06034N3□T	4.3	**±0.3nH**, ±0.2nH, **±3%**	5	13	6,500	8,000	0.40	0.24	350	
HI06034N7□T	4.7	**±0.3nH**, ±0.2nH, **±3%**	5	12	6,500	7,750	0.40	0.26	350	
HI06035N1□T	5.1	**±0.3nH**, ±0.2nH, **±3%**	5	12	6,500	7,210	0.40	0.26	350	
HI06035N6□T	5.6	**±0.3nH**, ±0.2nH, **±3%**	5	12	6,000	6,680	0.40	0.32	350	
HI06036N2□T	6.2	**±0.3nH**, ±0.2nH, **±3%**	5	12	6,000	6,800	0.44	0.32	300	
HI06036N8□T	6.8	**±5%**, ±3%	5	12	5,400	6,800	0.50	0.34	300	

Ordering Code	Inductance (nH)	Available Tolerance	Q (Min)		Self-Resonance Frequency (MHz)		DC Resistance (Ω)		Rated Current (mA)	Packing Amount
			100(MHz)	500(MHz)	Min.	typ.	Max.	typ.	Max.	kPcs
HI06037N5□T	7.5	**±5%**, ±3%	5	12	4,800	6,000	0.53	0.36	300	15
HI06038N2□T	8.2	**±5%**, ±3%	5	12	4,800	5,800	0.55	0.38	250	
HI06039N1□T	9.1	**±5%**, ±3%	5	11	4,500	5,000	0.62	0.38	250	
HI060310N□T	10	**±5%**, ±3%	5	11	4,500	4,860	0.65	0.40	250	
HI060312N□T	12	**±5%**, ±3%	5	11	3,700	4,520	0.70	0.50	250	
HI060315N□T	15	**±5%**, ±3%	5	11	2,200	4,820	0.80	0.60	250	
HI060318N□T	18	**±5%**, ±3%	5	11	2,200	3,000	0.90	0.85	200	
HI060322N□T	22	**±5%**, ±3%	5	9	2,000	2,950	1.20	0.86	150	
HI060327N□T	27	**±5%**, ±3%	4	9	1,800	2,610	1.80	0.88	140	
HI060333N□T	33	**±5%**	4	7	1,700	2,210	2.10	1.05	120	
HI060339N□T	39	**±5%**	4	7	1,500	1,860	2.40	1.18	120	
HI060347N□T	47	**±5%**	4	7	1,300	1,800	2.80	1.74	100	
HI060356N□T	56	**±5%**	4	7	1,100	1,600	3.00	1.85	80	
HI060368N□T	68	**±5%**	4	7	1,100	1,500	2.66	2.30	80	
HI060382N□T	82	**±5%**	4	7	1,000	1,400	3.37	2.60	70	
HI0603R10□T	100	**±5%**	4	7	900	1,200	3.74	3.00	60	

□Tolerance: D=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, H=±3％, J=±5%, K=±10%

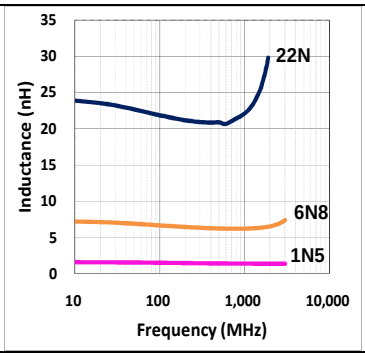
※Operating Temperature range: -55 ℃to +125 ℃

L,Q vs. Frequency Characteristics

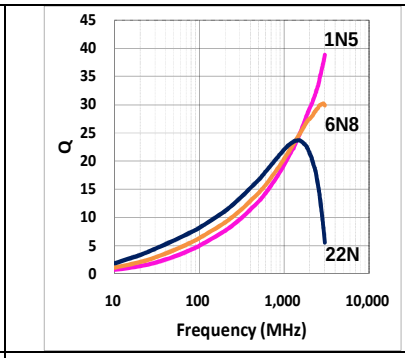
Ordering Code	Typical Inductance(nH)							Typical Q						
	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz
HI06030N3□T	0.3	0.3	0.3	0.3	0.3	0.3	0.3	6	14	19	20	32	35	39
HI06030N4□T	0.4	0.4	0.4	0.4	0.4	0.4	0.4	6	14	19	20	32	35	39
HI06030N5□T	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6	14	19	20	33	36	40
HI06030N6□T	0.6	0.6	0.5	0.5	0.5	0.5	0.5	6	15	19	20	33	36	40
HI06030N7□T	0.7	0.7	0.6	0.6	0.6	0.6	0.6	6	15	20	21	34	37	41
HI06030N8□T	0.8	0.8	0.7	0.7	0.7	0.7	0.7	6	14	19	20	32	35	39
HI06030N9□T	0.9	0.8	0.8	0.8	0.8	0.8	0.8	6	15	20	21	35	37	42
HI06031N0□T	1.0	0.9	0.9	0.9	0.9	0.9	0.9	5	13	17	18	28	30	33
HI06031N1□T	1.1	1.0	1.0	1.0	0.9	0.9	0.9	6	14	18	20	30	32	34
HI06031N2□T	1.2	1.2	1.2	1.2	1.2	1.2	1.2	6	14	18	19	28	30	32
HI06031N3□T	1.3	1.2	1.2	1.2	1.2	1.2	1.2	6	13	17	18	27	28	31
HI06031N4□T	1.4	1.3	1.2	1.2	1.3	1.3	1.3	6	14	18	20	30	32	34
HI06031N5□T	1.5	1.4	1.3	1.3	1.4	1.4	1.4	6	14	18	20	30	32	34
HI06031N6□T	1.6	1.6	1.6	1.6	1.6	1.6	1.6	6	14	18	20	28	30	31
HI06031N7□T	1.7	1.6	1.6	1.6	1.6	1.6	1.6	6	14	18	20	28	30	31
HI06031N8□T	1.8	1.7	1.7	1.7	1.7	1.7	1.7	6	14	18	20	28	30	31
HI06031N9□T	1.9	1.8	1.8	1.8	1.9	1.8	1.9	6	14	18	19	28	29	31
HI06032N0□T	2.0	1.9	1.9	1.9	2.0	1.9	2.0	6	14	18	19	28	29	31
HI06032N1□T	2.1	2.0	1.9	1.9	2.0	2.0	2.1	6	13	17	18	26	28	30
HI06032N2□T	2.2	2.1	2.0	2.0	2.1	2.1	2.2	6	13	17	18	26	28	30
HI06032N3□T	2.3	2.2	2.1	2.1	2.2	2.3	2.4	6	13	17	18	26	28	30
HI06032N4□T	2.4	2.3	2.2	2.2	2.3	2.4	2.5	6	14	18	20	28	29	31
HI06032N5□T	2.5	2.4	2.3	2.3	2.4	2.5	2.6	6	14	18	20	28	29	31
HI06032N6□T	2.6	2.4	2.4	2.4	2.5	2.6	2.7	6	14	18	19	28	29	31
HI06032N7□T	2.7	2.5	2.5	2.5	2.6	2.7	2.8	6	14	18	19	28	29	31
HI06032N9□T	2.9	2.7	2.7	2.7	2.8	2.8	2.9	6	14	18	19	28	29	31
HI06033N0□T	3.0	2.8	2.8	2.8	2.9	2.9	3.0	7	15	19	21	30	31	33
HI06033N1□T	3.1	2.9	2.9	2.9	3.0	3.0	3.1	7	15	19	21	30	31	33
HI06033N2□T	3.2	3.0	3.0	3.0	3.1	3.1	3.2	6	14	19	20	29	30	32
HI06033N3□T	3.3	3.2	3.1	3.2	3.0	3.4	3.5	6	14	19	20	29	30	32
HI06033N4□T	3.4	3.3	3.2	3.2	3.1	3.4	3.5	6	14	19	20	29	30	32
HI06033N5□T	3.5	3.3	3.3	3.3	3.6	3.6	3.8	6	14	18	20	28	29	31
HI06033N6□T	3.6	3.4	3.4	3.4	3.7	3.7	3.9	6	14	18	20	28	29	31

Ordering Code	Typical Inductance(nH)							Typical Q						
	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz
HI06033N7□T	3.7	3.5	3.5	3.5	3.8	3.8	4.0	6	14	18	20	28	29	31
HI06033N8□T	3.8	3.6	3.6	3.6	3.8	3.9	4.1	6	15	19	20	28	29	31
HI06033N9□T	3.9	3.7	3.7	3.7	3.9	4.0	4.2	6	15	19	20	28	29	31
HI06034N3□T	4.3	4.1	4.1	4.1	4.4	4.9	4.8	6	14	18	19	27	28	29
HI06034N7□T	4.7	4.4	4.4	4.4	4.8	4.9	5.2	6	14	19	19	26	27	29
HI06035N1□T	5.1	4.9	4.9	4.9	5.4	5.6	6.0	6	13	17	18	25	25	26
HI06035N6□T	5.6	5.3	5.3	5.3	5.8	6.0	6.6	7	14	18	19	26	27	27
HI06036N2□T	6.2	6.0	6.0	6.1	6.9	7.2	8.1	6	14	18	19	26	26	30
HI06036N8□T	6.8	6.3	6.4	6.4	7.2	7.4	8.2	7	14	18	19	26	26	26
HI06037N5□T	7.5	7.1	7.2	7.2	8.3	8.7	9.8	6	15	18	20	25	25	25
HI06038N2□T	8.2	7.8	7.9	8.0	9.2	9.7	11.0	7	15	18	19	19	24	24
HI06039N1□T	9.1	8.7	8.8	8.9	10.8	11.6	13.9	6	13	16	17	21	20	18
HI060310N□T	10.0	9.3	9.5	9.6	12.0	13.0	16.1	6	13	16	17	20	20	18
HI060312N□T	12.0	11.3	11.5	11.7	15.4	17.2	23.2	7	13	16	17	18	17	14
HI060315N□T	15.0	14.5	15.1	15.4	22.4	26.2	42.3	7	15	18	19	19	17	11
HI060318N□T	18.0	17.2	18.1	18.6	31.1	39.5	99.3	7	13	16	16	14	11	5
HI060322N□T	22.0	21.4	22.8	23.5	45.5	64.1	-	7	13	16	16	12	8	-
HI060327N□T	27.0	26.6	29.2	30.6	108.5	-	-	6	13	15	15	6	-	-
HI060333N□T	33.0	31.9	34.8	36.0	119.0	-	-	7	14	16	17	6	-	-
HI060339N□T	39.0	38.2	42.3	45.6	-	-	-	6	12	13	13	-	-	-
HI060347N□T	47.0	44.0	47.0	49.0	-	-	-	6	11	12	11	-	-	-
HI060356N□T	56.0	54.0	61.0	66.0	-	-	-	6	11	11	10	-	-	-
HI060368N□T	68.0	66.0	76.0	82.0	-	-	-	6	11	11	10	-	-	-
HI060382N□T	82.0	80.0	97.0	108.0	-	-	-	6	11	10	8	-	-	-
HI0603R10□T	100.0	103.0	138.0	164.0	-	-	-	6	10	9	6	-	-	-

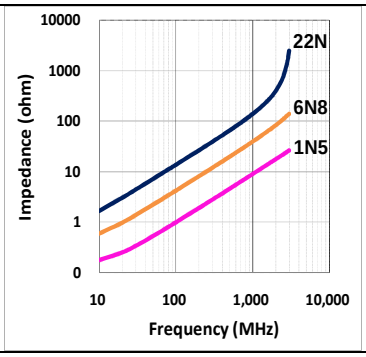
Typical Electrical Characteristic



0603 L vs Frequency



0603 Q vs Frequency



603 s Frequency

- **HI1005 series (EIA 0402)**

Ordering Code	Inductance (nH)	Available Tolerance	Q	L, Q Measuring Frequency	Self-Resonance Frequency (MHz)		DC Resistance (Ω)		Rated Current (mA)	Packing Amount
			Min.	(MHz)	Min.	typ.	Max.	typ.	Max.	kPcs
HI10050N3□T	0.3	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	10
HI10050N4□T	0.4	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	
HI10050N5□T	0.5	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	
HI10050N6□T	0.6	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	
HI10050N7□T	0.7	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	
HI10050N8□T	0.8	**±0.1nH**	8	100	10,000	>13000	0.08	0.02	380	
HI10051N0□T	1.0	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.08	0.02	380	
HI10051N1□T	1.1	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.08	0.03	380	
HI10051N2□T	1.2	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.09	0.03	380	
HI10051N3□T	1.3	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.09	0.04	380	
HI10051N5□T	1.5	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.10	0.05	380	
HI10051N6□T	1.6	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	>13000	0.10	0.05	380	
HI10051N8□T	1.8	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	12,220	0.12	0.05	380	
HI10052N0□T	2.0	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	12,890	0.12	0.06	380	
HI10052N2□T	2.2	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	12,430	0.13	0.06	380	
HI10052N4□T	2.4	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	10,000	12,320	0.13	0.07	380	
HI10052N7□T	2.7	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	10,070	0.16	0.09	380	
HI10053N0□T	3.0	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	8,760	0.16	0.09	380	
HI10053N3□T	3.3	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	8,120	0.16	0.09	300	
HI10053N6□T	3.6	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	8,200	0.20	0.10	300	
HI10053N9□T	3.9	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	8,390	0.20	0.10	300	
HI10054N3□T	4.3	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	7,500	0.20	0.11	300	
HI10054N7□T	4.7	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	6,000	7,010	0.20	0.11	300	
HI10055N1□T	5.1	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	5,300	6,340	0.23	0.13	300	
HI10055N6□T	5.6	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	4,500	5,760	0.23	0.13	300	
HI10056N2□T	6.2	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	4,500	5,490	0.25	0.15	300	
HI10056N8□T	6.8	**±5%**, ±3%, ±2%	8	100	4,500	5,430	0.25	0.14	300	
HI10057N5□T	7.5	**±5%**, ±3%, ±2%	8	100	4,200	5,000	0.28	0.16	300	
HI10058N2□T	8.2	**±5%**, ±3%, ±2%	8	100	3,700	4,660	0.28	0.17	300	
HI10059N1□T	9.1	**±5%**, ±3%, ±2%	8	100	3,400	4,400	0.30	0.22	300	
HI100510N□T	10	**±5%**, ±3%, ±2%	8	100	3,400	4,120	0.31	0.24	300	
HI100512N□T	12	**±5%**, ±3%, ±2%	8	100	3,000	3,820	0.45	0.30	300	
HI100513N□T	13	**±5%**, ±3%, ±2%	8	100	3,000	3,820	0.50	0.35	300	
HI100515N□T	15	**±5%**, ±3%, ±2%	8	100	2,500	3,350	0.55	0.38	300	
HI100518N□T	18	**±5%**, ±3%, ±2%	8	100	2,200	2,970	0.65	0.37	300	
HI100522N□T	22	**±5%**, ±3%, ±2%	8	100	1,900	2,640	0.70	0.45	300	
HI100524N□T	24	**±5%**, ±3%	8	100	1,700	2,640	0.70	0.45	300	
HI100527N□T	27	**±5%**, ±3%	8	100	1,700	2,370	0.80	0.49	300	
HI100533N□T	33	**±5%**, ±3%	8	100	1,600	2,040	0.90	0.63	200	
HI100539N□T	39	**±5%**, ±3%	8	100	1,200	1,800	1.00	0.70	200	
HI100547N□T	47	**±5%**, ±3%	8	100	1,100	1,660	1.10	0.82	200	
HI100556N□T	56	**±5%**, ±3%	8	100	1,000	1,560	1.10	0.84	200	

Ordering Code	Inductance (nH)	Available Tolerance	Q	L, Q Measuring Frequency	Self-Resonance Frequency (MHz)		DC Resistance (Ω)		Rated Current (mA)	Packing Amount
			Min.	(MHz)	Min.	typ.	Max.	typ.	Max.	kPcs
HI100568N□T	68	**±5%**, ±3%	8	100	800	1,330	1.20	0.99	200	10
HI100582N□T	82	**±5%**, ±3%	8	100	600	1,160	1.30	1.09	200	
HI1005R10□T	100	**±5%**, ±3%	8	100	600	1,020	1.60	1.19	200	
HI1005R12□T	120	**±5%**	8	100	600	860	1.60	1.31	150	
HI1005R15□T	150	**±5%**	8	100	550	800	3.20	2.00	140	
HI1005R18□T	180	**±5%**	8	100	500	810	3.70	2.97	130	
HI1005R22□T	220	**±5%**	8	100	450	700	4.20	3.29	120	
HI1005R27□T	270	**±5%**	8	100	400	600	4.80	3.92	110	

□Tolerance: D=±0.1nH, C=±0.2nH ,S=±0.3nH, G=±2%, H=±3%, J=±5%, K=±10%

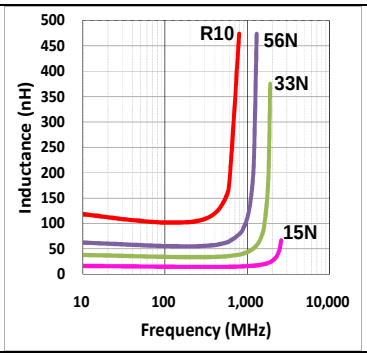
※Operating Temperature range: -55 ℃to +125 ℃

L,Q vs. Frequency Characteristics

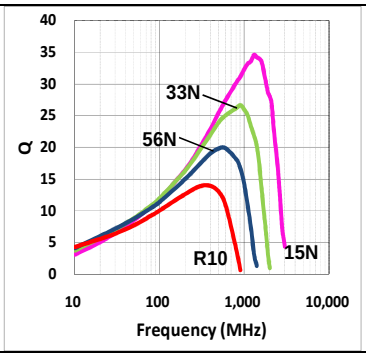
Ordering Code	Typical Inductance(nH)							Typical Q						
	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz
HI10050N3□T	0.3	0.3	0.3	0.3	0.3	0.3	0.3	13	40	60	65	100	120	140
HI10050N4□T	0.4	0.4	0.4	0.4	0.4	0.4	0.4	13	40	60	65	100	120	140
HI10050N5□T	0.5	0.5	0.5	0.5	0.5	0.5	0.5	13	40	60	65	100	120	140
HI10050N6□T	0.6	0.6	0.6	0.6	0.6	0.6	0.6	12	40	60	65	100	120	140
HI10050N7□T	0.7	0.7	0.7	0.7	0.7	0.7	0.7	12	40	60	65	100	120	140
HI10050N8□T	0.8	0.8	0.8	0.8	0.8	0.8	0.8	12	29	38	41	63	71	75
HI10051N0□T	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12	29	38	41	63	71	75
HI10051N1□T	1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	29	37	40	60	67	72
HI10051N2□T	1.2	1.2	1.2	1.2	1.2	1.2	1.2	11	29	38	41	61	68	73
HI10051N3□T	1.3	1.3	1.3	1.3	1.3	1.3	1.3	11	30	38	41	61	67	72
HI10051N5□T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	11	27	35	38	57	63	68
HI10051N6□T	1.6	1.5	1.5	1.5	1.5	1.5	1.5	11	28	35	38	57	64	68
HI10051N8□T	1.8	1.7	1.7	1.7	1.7	1.7	1.8	11	26	33	36	53	58	61
HI10052N0□T	2.0	2.0	2.0	2.0	2.0	2.1	2.1	10	23	29	31	45	49	52
HI10052N2□T	2.2	2.1	2.1	2.1	2.2	2.2	2.2	10	24	31	33	48	52	55
HI10052N4□T	2.4	2.3	2.3	2.3	2.4	2.4	2.4	10	25	31	34	49	53	57
HI10052N7□T	2.7	2.7	2.7	2.7	2.8	2.8	2.9	11	27	35	37	54	58	60
HI10053N0□T	3.0	2.9	2.9	3.0	3.1	3.1	3.2	10	25	32	34	49	53	55
HI10053N3□T	3.3	3.2	3.2	3.2	3.4	3.4	3.5	11	25	32	35	50	54	56
HI10053N6□T	3.6	3.5	3.5	3.5	3.7	3.8	3.9	10	24	31	33	46	49	49
HI10053N9□T	3.9	3.7	3.7	3.8	3.9	4.0	4.1	11	24	30	33	46	49	51
HI10054N3□T	4.3	4.1	4.2	4.2	4.4	4.4	4.6	11	26	33	35	50	53	54
HI10054N7□T	4.7	4.5	4.5	4.5	4.8	4.9	5.1	11	25	32	35	49	51	53
HI10055N1□T	5.1	4.9	4.9	4.9	5.2	5.3	5.6	11	25	32	35	46	48	49
HI10055N6□T	5.6	5.5	5.5	5.5	6.0	6.2	6.7	11	25	32	35	46	48	49
HI10056N2□T	6.2	6.1	6.1	6.1	6.7	6.8	7.3	11	26	32	34	46	48	49
HI10056N8□T	6.8	6.6	6.7	6.7	7.4	7.6	8.2	11	26	32	35	46	48	48
HI10057N5□T	7.5	7.1	7.2	7.3	7.8	8.1	8.8	11	26	32	35	46	48	48
HI10058N2□T	8.2	8.0	8.1	8.2	9.4	9.9	11.1	11	26	32	34	42	42	40
HI10059N1□T	9.1	8.7	8.8	8.8	9.9	10.2	11.1	11	25	31	34	42	42	40
HI100510N□T	10.0	10.0	9.8	9.9	11.7	12.4	14.4	11	23	29	31	37	37	34

Ordering Code	Typical Inductance(nH)							Typical Q						
	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz
HI100512N□T	12.0	11.7	12.0	12.2	15.1	16.3	20.1	11	24	31	33	37	36	30
HI100513N□T	13.0	12.7	13.0	13.2	16.1	17.3	21.0	11	24	31	33	37	36	30
HI100515N□T	15.0	14.9	15.5	15.8	22.8	26.4	41.8	11	23	30	32	35	33	28
HI100518N□T	18.0	17.8	18.4	18.7	24.9	27.7	37.7	11	23	28	29	30	28	22
HI100522N□T	22.0	21.8	23.1	23.8	40.9	52.7	156.0	11	22	27	28	22	18	6
HI100524N□T	24.0	23.8	25.1	25.8	42.9	54.7	158.0	11	22	27	28	22	18	6
HI100527N□T	27.0	27.1	29.2	30.3	66.8	106.9	-	11	22	26	27	16	11	4
HI100533N□T	33.0	33.2	36.3	37.9	109.0	259.0	-	11	22	25	26	12	5	-
HI100539N□T	39.0	40.2	45.9	49.1	-	-	-	11	20	22	22	-	-	-
HI100547N□T	47.0	49.1	57.2	61.7	-	-	-	11	20	21	21	-	-	-
HI100556N□T	56.0	59.2	71.8	79.3	-	-	-	11	19	19	18	-	-	-
HI100568N□T	68.0	74.7	99.4	116.3	-	-	-	11	18	17	15	-	-	-
HI100582N□T	82.0	94.7	140.8	179.5	-	-	-	11	18	15	12	-	-	-
HI1005R10□T	100.0	117.6	193.7	269.9	-	-	-	11	17	12	9	-	-	-
HI1005R12□T	120.0	159.8	450.4	-	-	-	-	11	16	7	-	-	-	-
HI1005R15□T	150.0	207.2	-	-	-	-	-	11	14	-	-	-	-	-
HI1005R18□T	180.0	-	-	-	-	-	-	12	-	-	-	-	-	-
HI1005R22□T	220.0	-	-	-	-	-	-	12	-	-	-	-	-	-
HI1005R27□T	270.0	-	-	-	-	-	-	12	-	-	-	-	-	-

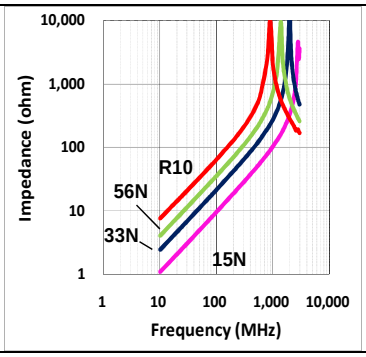
Typical Electrical Characteristic



1005 L vs Frequency



1005 Q vs Frequency



1005s Frequency

- **HI1608 series (EIA 0603)**

Ordering Code	Inductance (nH)	Available Tolerance	Q	L, Q Measuring Frequency	Self-Resonance Frequency (MHz)		DC Resistance (Ω)		Rated Current (mA)	Packing Amount
			Min.	(MHz)	Min.	typ.	Max.	typ.	Max.	kPcs
HI16081N0□T	1.0	**±0.3nH**, ±0.1nH	8	100	10,000	>13000	0.05	0.01	1000	
HI16081N2□T	1.2	**±0.3nH**, ±0.1nH	8	100	10,000	>13000	0.05	0.02	1000	
HI16081N5□T	1.5	**±0.3nH**, ±0.1nH	8	100	10,000	>13000	0.10	0.03	1000	
HI16081N8□T	1.8	**±0.3nH**, ±0.1nH	8	100	10,000	>13000	0.10	0.04	1000	
HI16082N0□T	2.0	**±0.3nH**, ±0.1nH	8	100	8,000	11,690	0.10	0.05	1000	
HI16082N2□T	2.2	**±0.3nH**, ±0.2nH, ±0.1nH	8	100	8,000	11690	0.10	0.05	1000	
HI16082N7□T	2.7	**±0.3nH**, ±0.1nH	10	100	7,000	8930	0.13	0.06	1000	
HI16083N0□T	3.0	**±0.3nH**, ±0.1nH	10	100	6,000	6,440	0.13	0.07	1000	
HI16083N3□T	3.3	**±0.3nH**, ±0.1nH	10	100	6,000	6440	0.13	0.07	1000	
HI16083N6□T	3.6	**±0.3nH**, ±0.1nH	10	100	6,000	6,880	0.15	0.08	1000	
HI16083N9□T	3.9	**±0.3nH**, ±0.1nH	10	100	6,000	7280	0.15	0.08	1000	
HI16084N7□T	4.7	**±0.3nH**, ±0.1nH	10	100	5,000	6470	0.20	0.09	1000	
HI16085N6□T	5.6	**±0.3nH**, ±0.1nH	10	100	4,000	5230	0.23	0.10	600	
HI16086N8□T	6.8	**±5%**, ±2%	10	100	4,000	5470	0.25	0.11	600	
HI16088N2□T	8.2	**±5%**, ±2%	10	100	3,500	4460	0.28	0.14	600	
HI160810N□T	10	**±5%**, ±2%	12	100	3,400	4360	0.30	0.15	600	
HI160812N□T	12	**±5%**, ±2%	12	100	2,600	3480	0.35	0.17	600	
HI160815N□T	15	**±5%**, ±2%	12	100	2,300	3310	0.40	0.19	600	
HI160818N□T	18	**±5%**, ±2%	12	100	2,000	3080	0.45	0.21	600	4
HI160822N□T	22	**±5%**, ±2%	12	100	2,000	2670	0.50	0.29	600	
HI160827N□T	27	**±5%**, ±2%	12	100	1,400	2270	0.55	0.27	600	
HI160833N□T	33	**±5%**, ±2%	12	100	1,200	1970	0.60	0.36	600	
HI160839N□T	39	**±5%**, ±2%	12	100	1,100	1830	0.65	0.37	500	
HI160847N□T	47	**±5%**, ±2%	12	100	900	1670	0.70	0.47	500	
HI160856N□T	56	**±5%**, ±2%	12	100	900	1530	0.75	0.46	500	
HI160868N□T	68	**±5%**, ±2%	12	100	700	1360	0.85	0.51	400	
HI160882N□T	82	**±5%**, ±2%	12	100	600	1290	0.95	0.57	300	
HI1608R10□T	100	**±5%**	12	100	600	1090	1.00	0.69	300	
HI1608R12□T	120	**±5%**	8	50	500	1030	1.20	0.74	300	
HI1608R15□T	150	**±5%**	8	50	500	820	1.20	0.78	300	
HI1608R18□T	180	**±5%**	8	50	400	690	1.30	0.92	300	
HI1608R20□T	200	**±5%**	8	50	400	630	1.50	1.19	300	
HI1608R22□T	220	**±5%**	8	50	400	630	1.50	1.19	300	
HI1608R27□T	270	**±5%**	8	50	400	520	1.90	1.19	200	
HI1608R33□T	330	**±5%**	8	50	350	450	2.10	1.50	200	
HI1608R39□T	390	**±5%**	8	50	350	400	2.30	1.80	150	
HI1608R47□T	470	**±5%**	8	50	300	360	2.60	2.04	150	

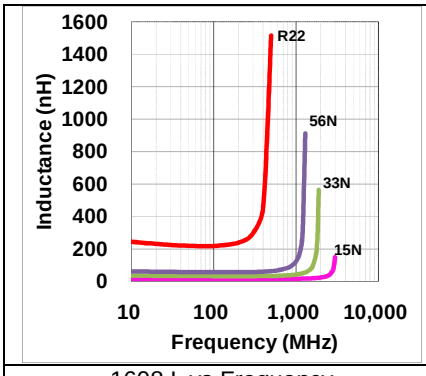
□Tolerance: D=±0.1nH, S=±0.3nH, G=±2%, J=±5%, K=±10%

※Operating Temperature range: -40℃to +85℃

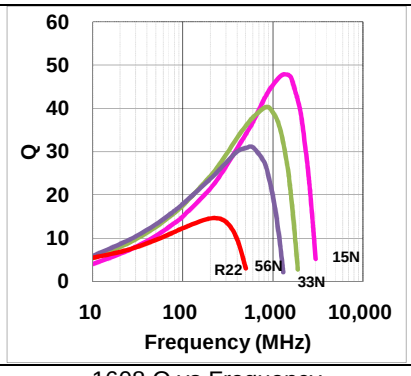
L,Q vs. Frequency Characteristics

Ordering Code	Typical Inductance(nH)							Typical Q						
	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz	100 MHz	500 MHz	800 MHz	900 MHz	1.8 GHz	2.0 GHz	2.4 GHz
HI16081N0□T	1.0	1.1	1.1	1.1	1.1	1.1	1.0	14	40	53	60	93	32	174
HI16081N2□T	1.2	1.2	1.2	1.2	1.2	1.2	1.1	14	38	49	54	84	32	143
HI16081N5□T	1.5	1.6	1.6	1.6	1.6	1.5	1.5	12	31	39	43	62	33	88
HI16081N8□T	1.8	1.8	1.8	1.8	1.8	1.8	1.7	13	34	42	46	68	37	97
HI16082N0□T	2.0	2.0	2.0	2.0	2.0	2.0	2.0	14	36	46	50	73	42	101
HI16082N2□T	2.2	2.2	2.2	2.2	2.2	2.2	2.2	14	36	46	50	73	42	101
HI16082N7□T	2.7	2.7	2.7	2.7	2.7	2.7	2.7	14	36	47	45	72	45	94
HI16083N0□T	3.0	3.0	3.0	3.0	3.2	3.2	3.3	14	37	47	50	67	47	77
HI16083N3□T	3.3	3.3	3.3	3.3	3.5	3.5	3.6	14	37	47	50	67	47	77
HI16083N6□T	3.6	3.6	3.6	3.6	3.7	3.7	3.8	14	36	45	49	66	48	80
HI16083N9□T	3.9	3.9	3.9	3.9	4.0	4.0	4.1	15	36	46	49	66	48	81
HI16084N7□T	4.7	4.6	4.6	4.7	4.9	4.9	5.1	15	39	50	53	70	53	80
HI16085N6□T	5.6	5.5	5.6	5.6	6.1	6.3	6.7	15	39	50	54	67	52	69
HI16086N8□T	6.8	6.7	6.7	6.8	7.3	7.5	7.9	15	38	49	52	66	53	66
HI16088N2□T	8.2	8.1	8.2	8.3	9.5	9.9	11.0	16	37	48	50	59	49	54
HI160810N□T	10.0	9.9	10.1	10.2	11.7	12.3	13.9	16	39	49	52	60	50	52
HI160812N□T	12.0	12.2	12.6	12.8	16.6	18.4	24.4	16	36	46	48	47	39	31
HI160815N□T	15.0	15.1	15.6	15.9	21.0	23.4	31.9	17	40	50	52	49	41	31
HI160818N□T	18.0	18.1	18.9	19.3	27.7	32.2	52.2	17	39	48	50	43	35	21
HI160822N□T	22.0	22.3	23.8	24.6	45.7	63.5	521.1	17	39	46	47	29	19	1
HI160827N□T	27.0	27.8	30.3	31.6	85.8	191.2	-	18	39	45	46	19	8	-
HI160833N□T	33.0	34.9	38.8	40.9	-	-	-	18	39	43	43	-	-	-
HI160839N□T	39.0	41.3	47.7	51.2	-	-	-	19	36	39	37	-	-	-
HI160847N□T	47.0	50.0	58.9	64.0	-	-	-	17	34	36	34	-	-	-
HI160856N□T	56.0	62.0	77.7	87.5	-	-	-	19	35	34	31	-	-	-
HI160868N□T	68.0	76.8	103.2	121.7	-	-	-	18	33	29	25	-	-	-
HI160882N□T	82.0	96.5	145.3	187.2	-	-	-	19	32	25	20	-	-	-
HI1608R10□T	100.0	123.7	222.4	343.5	-	-	-	18	30	19	12	-	-	-
HI1608R12□T	120.0	156.0	355.0	-	-	-	-	19	28	14	-	-	-	-
HI1608R15□T	150.0	227.9	-	-	-	-	-	18	21	-	-	-	-	-
HI1608R18□T	180.0	336.8	-	-	-	-	-	17	17	-	-	-	-	-
HI1608R22□T	220.0	520.7	-	-	-	-	-	16	13	-	-	-	-	-
HI1608R27□T	270.0	-	-	-	-	-	-	16	-	-	-	-	-	-
HI1608R33□T	330.0	-	-	-	-	-	-	14	-	-	-	-	-	-
HI1608R39□T	390.0	-	-	-	-	-	-	14	-	-	-	-	-	-
HI1608R47□T	470.0	-	-	-	-	-	-	13	-	-	-	-	-	-

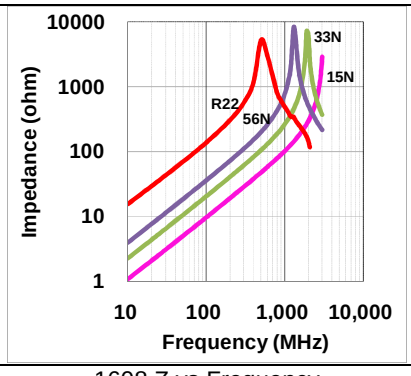
Typical Electrical Characteristic



1608 L vs Frequency

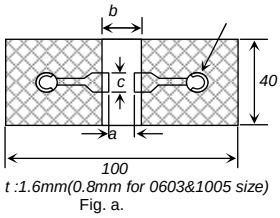
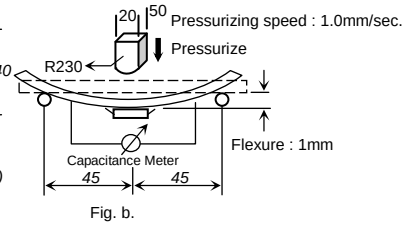


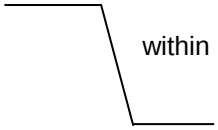
1608 Q vs Frequency



1608 Z vs Frequency

■Testing Condition & Requirements (IQ & HI Series)

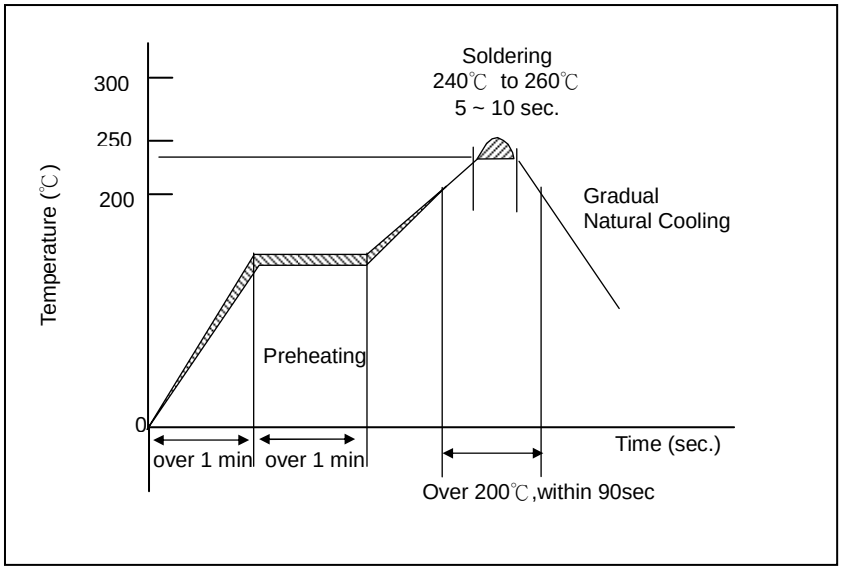
No.	Item	Test Condition	Requirements
1	Appearance	Inductors shall be visually inspected for visible evidence of defect.	No harmful defect for piratical use.
2	Inductance	a. Temperature:25+/- 3℃ b. Relative Humidity: 45 to 75%RH c. Measurement Voltage: 500mV d. Measuring equipment and fixture: 0402(01005)HP4287+16196D 0603(0201) HP 4287+16196C 1005(0402) HP 4287+16193A 1608(0603) HP 4291+16192A	Within specified tolerance.
3	Q Value	a. Temperature: 25 ± 3℃ b. Relative Humidity: 45 to 75%RH c. Measurement Voltage: 500mV d. Measuring equipment and fixture: 0402(01005)HP4287+16196D 0603(0201) HP 4287+16196C 1005(0402) HP 4287+16193A 1608(0603) HP 4291+16192A	In accordance with electrical specification.
4	DC Resistance	a. Temperature: 25 ± 3℃ b. Relative Humidity: 45 to 75%RH c. Measuring equipment: HP 4338	In accordance with electrical specification.
5	Dimension	Dimension shall be measured with caliper or micrometer	In accordance with dimension specification.
6	Solder-ability	Immerse a test sample into a methanol solution containing rosin and immerse into SAC305(Sn96.5Ag3.0Cu0.5) solder of 245±3℃ for 3±1 seconds.	90% of the termination is to be soldered evenly and continuously.
7	Resistance to Soldering Heat	Immerse a test sample into a methanol solution containing resin, preheat it at 120 to 150℃for 1 minutes and immerse into molten solder of 260 ± 5 ℃for 10 ± 0.5 second so that both terminal electrodes are completely submerged.	No visible damage Inductance variation within 10% Q variation within 20%
8	Bending Strength	Solder the chip to test jig then apply a force in the direction shown in below. The soldering shall be done with the reflow method and shall be conducted with care so that the soldering is uniform and free of defects such as heat shock.  t :1.6mm(0.8mm for 0603&1005 size) Fig. a.  Fig. b. Size | a | b | C 0402 | 0.2 | 0.5 | 0.2 0603 | 0.3 | 0.9 | 0.3 1005 | 0.4 | 1.5 | 0.5 1608 | 1.0 | 3.0 | 1.2	1. No mechanical damage shall be observed. 2. Rdc-value: to meet the initial Spec.

No.	Item	Test Condition	Requirements
9	Thermal Shock	Solder a test sample to printed circuit board, and conduct 5 cycles of test under the conditions shown as below. 0603 &1005 operating temp. range: -55~125℃ 1608 operating temp. range: -40~85℃ Cycle: Maximum operating temp. /(30+/-3min)  within 3min Minimum operating temp. (30+/-3min)	No visible damage Inductance variation within 10% Q variation within 20%
10	High Humidity State Life Test	Keep a test sample in an atmosphere with a temperature of 40±2℃, 90~95%RH for 500 +12/-0 hours. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24±2 hrs of recovery under standard condition.	No visible damage. Inductance variation within 10%. Q variation within 20%.
11	High Humidity Load Life Test	Solder a test sample to printed circuit board then keep the test sample in an atmosphere with a temperature of 40±2℃, 90~95%RH for 500+12/-0 hours while supplying the rated current. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24±2 hrs of recovery under standard condition.	No visible damage. Inductance variation within 10%. Q variation within 20%.
12	High Temperature State Life Test	Keep a test sample in an atmosphere with a temperature of 85±2℃ for 500±12 hours. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24±2hrs of recovery under standard condition.	No visible damage. Inductance variation within 10%. Q variation within 20%.
13	High Temperature Load	Solder a test sample to printed circuit board then keep the test sample in an atmosphere with a temperature of 60±2℃ for 500±12 hours while supplying the rated current. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24±2 hrs of recovery under standard condition.	No visible damage. Inductance variation within 10%. Q variation within 20%.

Reflow Profile Chart (Reference)

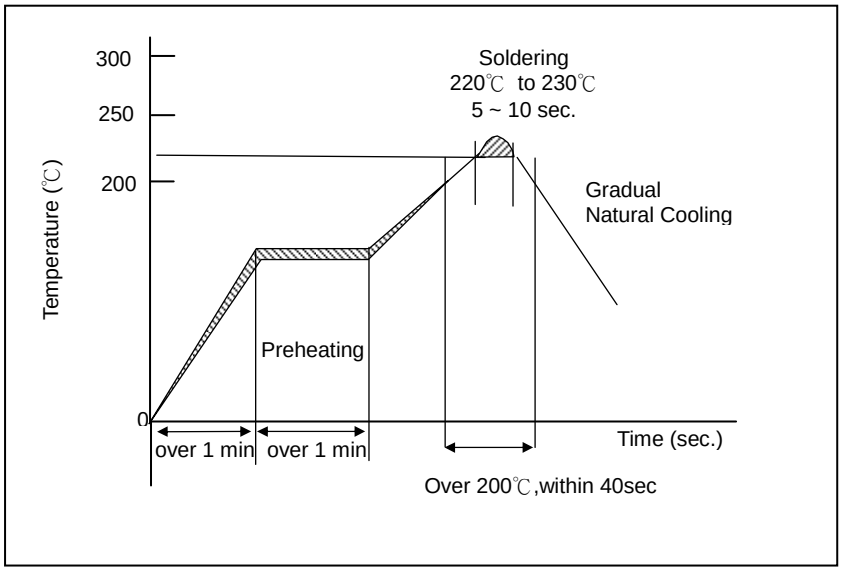
- **Soldering Profile for SMT Process with Lead Free Solder Paste.**

The rate of preheat should not exceed 4℃/sec and a target of 2℃/sec is preferred. Ceramic chip components should be preheated to within 100 to 130 ℃ of the soldering.



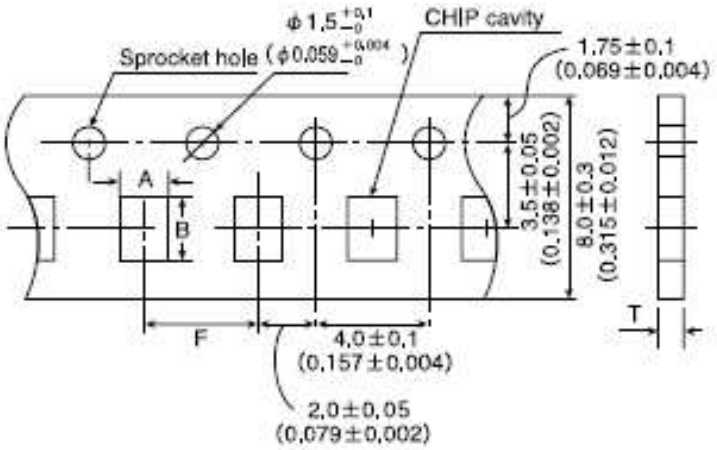
- **Soldering Profile for SMT Process with SnPb Solder Paste.**

The rate of preheat should not exceed 4℃/sec and a target of 2℃/sec is preferred. Ceramic chip components should be preheated to within 100 to 130 ℃ of the soldering.



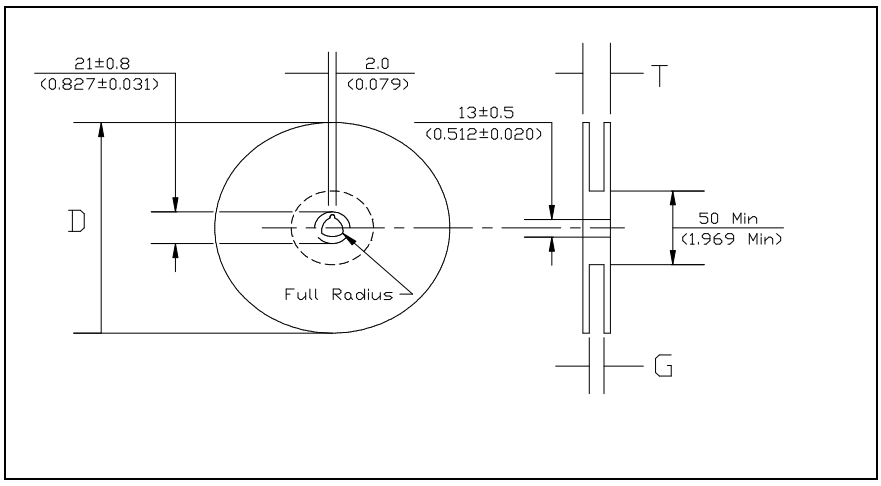
Packaging Specification

- **Paper Tape**



	Symbol	Product Size Code				
		0402(01005)	0603(0201)	1005(0402)	1608(0603)	2012(0805)
		(mm)	(mm)	(mm)	(mm)	(mm)
Chip cavity	A	0.25±0.04	0.38±0.02	0.62±0.03	1.0 ±0.2	1.5 ±0.2
	B	0.45±0.04	0.68±0.02	1.12±0.03	1.8 ±0.2	2.3 ±0.2
Insertion Pitch	F	2.0±0.05	2±0.1	2±0.1	4.0 ±0.1	4.0 ±0.1
Tape Thickness	T	0.36 max	1.1 max	1.1 max	1.1 max	0.8 max

- **Reel Specifications**

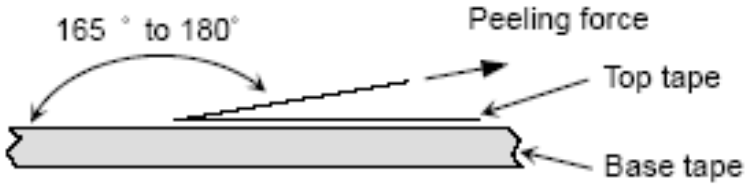


Tape Width (mm)	G (mm)	T max.(mm)	D (mm)
8	10.0±1.5	14.5	178±2.0

- **Peel Strength of Top Cover Tape**

  The peel speed shall be about 300 mm/min.

  The peel strength of top cover tape shall be between 0.1 to 1.0N.



Cautions

- **Storage**

  1. The inductor shall be packaged in carrier tapes.
  2. To keep storage place temperature from +5 to 35℃, humidity from 45 to 70% RH.
  3. The storage atmosphere must be free of gas containing sulfur and chlorine. Also, avoid exposing the product to saline moisture. If the product is exposed to such atmospheres, the terminals will oxidize and solderability will be affected.
  4. The solder ability is assured for 12 months from our final inspection date if the above storage condition is followed.

- **Handling**

  Inductor should be handled with care to avoid contamination or damage. The use of vacuum pick-up or plastic tweezers is recommended for manual placement. Tape and reeled packages are suitable for automatic pick and placement machine.