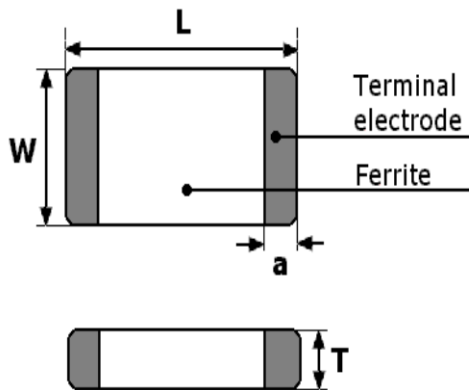




Multilayer Ceramic Chip Inductor - (HDIH)

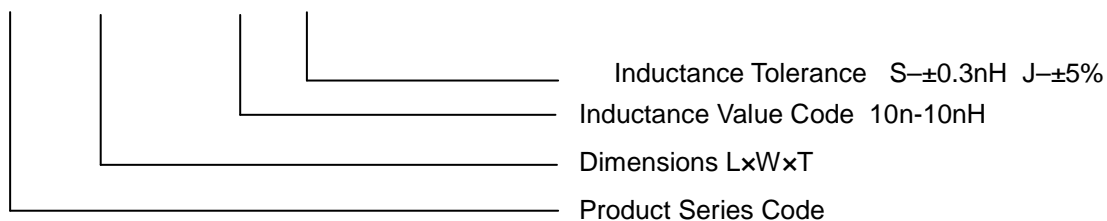
■ Dimensions and Construction



TYPE	L mm	W mm	T mm	a mm
0603(0201)	0.6±0.03	0.3±0.03	0.33Max	0.1~0.2
1005(0402)	1.0±0.05	0.5±0.05	0.5±0.05	0.1~0.3
1608(0603)	1.6±0.15	0.8±0.15	0.8±0.15	0.2~0.6
2012(0805)	2.0±0.2	1.25±0.2	0.8±0.2	0.2~0.8

■ Part Numbering System

HDIH **1005** - **10n** **J**



■ Electrical Characteristics

(1) Operating Temperature Ranges: -25 ~ 85°C.

(2) Rated Current(ceramic material): DC current that causes the temperature rise ($\Delta T \leq 40^\circ\text{C}$) from 25°C ambient.

Rated Current(ferrite material): DC current at which the inductance drops approximate 10% from its value without current



HDIH060303 (0201)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH0603-1N0S	1.0 \pm 0.3nH	4	100	10	0.14	250	0.33Max.
HDIH0603-1N2S	1.2 \pm 0.3nH	4	100	10	0.14	250	0.33Max.
HDIH0603-1N5S	1.5 \pm 0.3nH	4	100	10	0.18	230	0.33Max.
HDIH0603-1N8S	1.8 \pm 0.3nH	4	100	10	0.19	200	0.33Max.
HDIH0603-2N2S	2.2 \pm 0.3nH	4	100	8.8	0.22	200	0.33Max.
HDIH0603-2N7S	2.7 \pm 0.3nH	5	100	7.7	0.25	200	0.33Max.
HDIH0603-3N3S	3.3 \pm 0.3nH	5	100	6.7	0.30	180	0.33Max.
HDIH0603-3N9S	3.9 \pm 0.3nH	5	100	6.0	0.30	170	0.33Max.
HDIH0603-4N7S	4.7 \pm 0.3nH	5	100	5.3	0.40	150	0.33Max.
HDIH0603-5N1S	5.1 \pm 0.3nH	5	100	4.7	0.40	150	0.33Max.
HDIH0603-5N6S	5.6 \pm 0.3nH	5	100	4.2	0.40	150	0.33Max.
HDIH0603-6N8J	6.8 \pm 5%	5	100	3.5	0.50	150	0.33Max.
HDIH0603-8N2J	8.2 \pm 5%	5	100	3.2	0.55	150	0.33Max.
HDIH0603-10NJ	10 \pm 5%	5	100	2.8	0.65	150	0.33Max.
HDIH0603-12NJ	12 \pm 5%	5	100	2.4	0.70	100	0.33Max.
HDIH0603-15NJ	15 \pm 5%	5	100	2.2	0.80	100	0.33Max.
HDIH0603-18NJ	18 \pm 5%	5	100	2.1	0.90	100	0.33Max.
HDIH0603-22NJ	22 \pm 5%	5	100	1.8	1.20	100	0.33Max.
HDIH0603-27NJ	27 \pm 5%	4	100	1.8	1.80	50	0.33Max.
HDIH0603-33NJ	33 \pm 5%	4	100	1.7	2.10	50	0.33Max.
HDIH0603-39NJ	39 \pm 5%	4	100	1.5	2.40	50	0.33Max.



HDIH1005 (0402)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH1005-1N0S	1.0 \pm 0.3nH	8	100	10	0.10	400	0.5 \pm 0.05
HDIH1005-1N0S	1.1 \pm 0.3nH	8	100	10	0.10	400	0.5 \pm 0.05
HDIH1005-1N2S	1.2 \pm 0.3nH	8	100	10	0.10	400	0.5 \pm 0.05
HDIH1005-1N3S	1.3 \pm 0.3nH	8	100	10	0.10	400	0.5 \pm 0.05
HDIH1005-1N5S	1.5 \pm 0.3nH	8	100	6	0.10	300	0.5 \pm 0.05
HDIH1005-1N6S	1.6 \pm 0.3nH	8	100	6	0.10	300	0.5 \pm 0.05
HDIH1005-1N8S	1.8 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-2N0S	2.0 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-2N2S	2.2 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-2N4S	2.4 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-2N7S	2.7 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-3N0S	3.0 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-3N3S	3.3 \pm 0.3nH	8	100	6	0.20	300	0.5 \pm 0.05
HDIH1005-3N6S	3.6 \pm 0.3nH	8	100	4	0.20	300	0.5 \pm 0.05
HDIH1005-3N9S	3.9 \pm 0.3nH	8	100	4	0.20	300	0.5 \pm 0.05
HDIH1005-4N3S	3.9 \pm 0.3nH	8	100	4	0.20	300	0.5 \pm 0.05
HDIH1005-4N7S	4.7 \pm 0.3nH	8	100	4	0.20	300	0.5 \pm 0.05
HDIH1005-5N1S	5.1 \pm 0.3nH	8	100	4	0.30	300	0.5 \pm 0.05
HDIH1005-5N6S	5.6 \pm 0.3nH	8	100	4	0.30	300	0.5 \pm 0.05
HDIH1005-6N2S	6.2 \pm 0.3nH	8	100	3.9	0.30	300	0.5 \pm 0.05
HDIH1005-6N8J	6.8 \pm 5%	8	100	3.9	0.30	300	0.5 \pm 0.05
HDIH1005-7N5J	7.5 \pm 5%	8	100	3.7	0.40	300	0.5 \pm 0.05
HDIH1005-8N2J	8.2 \pm 5%	8	100	3.6	0.40	300	0.5 \pm 0.05
HDIH1005-9N1J	9.1 \pm 5%	8	100	3.4	0.40	300	0.5 \pm 0.05
HDIH1005-10NJ	10 \pm 5%	8	100	3.2	0.40	300	0.5 \pm 0.05
HDIH1005-12NJ	12 \pm 5%	8	100	2.7	0.50	300	0.5 \pm 0.05
HDIH1005-15NJ	15 \pm 5%	8	100	2.3	0.50	300	0.5 \pm 0.05
HDIH1005-18NJ	18 \pm 5%	8	100	2.1	0.60	300	0.5 \pm 0.05



HDIH1005 (0402)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH1005-22NJ	22 \pm 5%	8	100	1.9	0.60	300	0.5 \pm 0.05
HDIH1005-27NJ	27 \pm 5%	8	100	1.6	0.70	300	0.5 \pm 0.05
HDIH1005-33NJ	33 \pm 5%	8	100	1.3	0.80	200	0.5 \pm 0.05
HDIH1005-39NJ	39 \pm 5%	8	100	1.2	1.00	200	0.5 \pm 0.05
HDIH1005-43NJ	43 \pm 5%	8	100	1.1	1.10	200	0.5 \pm 0.05
HDIH1005-47NJ	47 \pm 5%	8	100	1.0	1.10	200	0.5 \pm 0.05
HDIH1005-56NJ	56 \pm 5%	8	100	0.75	1.20	200	0.5 \pm 0.05
HDIH1005-68NJ	68 \pm 5%	8	100	0.75	1.40	180	0.5 \pm 0.05
HDIH1005-82NJ	82 \pm 5%	8	100	0.60	2.40	150	0.5 \pm 0.05
HDIH1005-R10J	100 \pm 5%	8	100	0.60	2.60	150	0.5 \pm 0.05
HDIH1005-R12J	120 \pm 5%	8	100	0.60	2.80	150	0.5 \pm 0.05
HDIH1005-R15J	150 \pm 5%	8	100	0.55	3.20	100	0.5 \pm 0.05
HDIH1005-R18J	180 \pm 5%	8	100	0.50	3.70	100	0.5 \pm 0.05
HDIH1005-R22J	220 \pm 5%	8	100	0.45	4.00	100	0.5 \pm 0.05
HDIH1005-R27J	270 \pm 5%	8	100	0.40	4.50	100	0.5 \pm 0.05
HDIH1005-R30J	300 \pm 5%	6	50	0.35	7.00	50	0.5 \pm 0.05
HDIH1005-R33J	330 \pm 5%	6	50	0.35	7.00	50	0.5 \pm 0.05
HDIH1005-R36J	360 \pm 5%	6	50	0.30	7.50	50	0.5 \pm 0.05



HDIH1608 (0603)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH1608-1N0S	1.0 \pm 0.3nH	8	100	10.00	0.05	300	0.8 \pm 0.15
HDIH1608-1N2S	1.2 \pm 0.3nH	8	100	10.00	0.05	300	0.8 \pm 0.15
HDIH1608-1N5S	1.5 \pm 0.3nH	8	100	6.00	0.10	300	0.8 \pm 0.15
HDIH1608-1N8S	1.8 \pm 0.3nH	8	100	6.00	0.10	300	0.8 \pm 0.15
HDIH1608-2N2S	2.2 \pm 0.3nH	8	100	6.00	0.10	300	0.8 \pm 0.15
HDIH1608-2N7S	2.7 \pm 0.3nH	10	100	6.00	0.10	300	0.8 \pm 0.15
HDIH1608-3N3S	3.3 \pm 0.3nH	10	100	6.00	0.12	300	0.8 \pm 0.15
HDIH1608-3N9S	3.9 \pm 0.3nH	10	100	6.00	0.14	300	0.8 \pm 0.15
HDIH1608-4N7S	4.7 \pm 0.3nH	10	100	4.00	0.16	300	0.8 \pm 0.15
HDIH1608-5N6S	5.6 \pm 0.3nH	10	100	4.00	0.18	300	0.8 \pm 0.15
HDIH1608-6N8J	6.8 \pm 5%	10	100	4.00	0.22	300	0.8 \pm 0.15
HDIH1608-8N2J	8.2 \pm 5%	10	100	3.50	0.24	300	0.8 \pm 0.15
HDIH1608-10NJ	10 \pm 5%	12	100	3.40	0.26	300	0.8 \pm 0.15
HDIH1608-12NJ	12 \pm 5%	12	100	2.60	0.28	300	0.8 \pm 0.15
HDIH1608-15NJ	15 \pm 5%	12	100	2.30	0.32	300	0.8 \pm 0.15
HDIH1608-18NJ	18 \pm 5%	12	100	2.00	0.35	300	0.8 \pm 0.15
HDIH1608-22NJ	22 \pm 5%	12	100	1.60	0.40	300	0.8 \pm 0.15
HDIH1608-27NJ	27 \pm 5%	12	100	1.40	0.45	300	0.8 \pm 0.15
HDIH1608-33NJ	33 \pm 5%	12	100	1.20	0.55	300	0.8 \pm 0.15
HDIH1608-39NJ	39 \pm 5%	12	100	1.10	0.60	300	0.8 \pm 0.15
HDIH1608-47NJ	47 \pm 5%	12	100	0.90	0.70	300	0.8 \pm 0.15
HDIH1608-56NJ	56 \pm 5%	12	100	0.90	0.75	300	0.8 \pm 0.15
HDIH1608-68NJ	68 \pm 5%	12	100	0.70	0.85	300	0.8 \pm 0.15
HDIH1608-82NJ	82 \pm 5%	12	100	0.60	0.95	300	0.8 \pm 0.15



HDIH1608 (0603)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH1608-R10J	100 \pm 5%	12	100	0.60	1.00	300	0.8 \pm 0.15
HDIH1608-R12J	120 \pm 5%	8	50	0.50	1.20	300	0.8 \pm 0.15
HDIH1608-R15J	150 \pm 5%	8	50	0.50	1.60	200	0.8 \pm 0.15
HDIH1608-R18J	180 \pm 5%	8	50	0.40	1.90	200	0.8 \pm 0.15
HDIH1608-R22J	220 \pm 5%	8	50	0.65	2.40	200	0.8 \pm 0.15
HDIH1608-R27J	270 \pm 5%	8	50	0.35	2.60	150	0.8 \pm 0.15
HDIH1608-R33J	330 \pm 5%	8	50	0.35	2.80	150	0.8 \pm 0.15
HDIH1608-R39J	390 \pm 5%	8	50	0.30	3.20	150	0.8 \pm 0.15
HDIH1608-R43J	430 \pm 5%	8	50	0.28	3.40	150	0.8 \pm 0.15
HDIH1608-R47J	470 \pm 5%	8	50	0.25	3.60	150	0.8 \pm 0.15
HDIH1608-R56J	560 \pm 5%	8	50	0.25	4.00	100	0.8 \pm 0.15
HDIH1608-R68J	680 \pm 5%	8	50	0.25	4.50	100	0.8 \pm 0.15



HDIH2012 (0805)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH2012-1N0S	1.0 \pm 0.3nH	10	100	10	0.10	300	0.85 \pm 0.2
HDIH2012-1N2S	1.2 \pm 0.3nH	10	100	10	0.10	300	0.85 \pm 0.2
HDIH2012-1N5S	1.5 \pm 0.3nH	10	100	4.0	0.10	300	0.85 \pm 0.2
HDIH2012-1N8S	1.8 \pm 0.3nH	10	100	4.0	0.10	300	0.85 \pm 0.2
HDIH2012-2N2S	2.2 \pm 0.3nH	10	100	4.0	0.10	300	0.85 \pm 0.2
HDIH2012-2N7S	2.7 \pm 0.3nH	12	100	4.0	0.10	300	0.85 \pm 0.2
HDIH2012-3N3S	3.3 \pm 0.3nH	12	100	4.0	0.13	300	0.85 \pm 0.2
HDIH2012-3N9S	3.9 \pm 0.3nH	12	100	4.0	0.15	300	0.85 \pm 0.2
HDIH2012-4N7S	4.7 \pm 0.3nH	12	100	3.5	0.20	300	0.85 \pm 0.2
HDIH2012-5N6S	5.6 \pm 0.3nH	15	100	3.2	0.23	300	0.85 \pm 0.2
HDIH2012-6N8J	6.8 \pm 5%	15	100	2.8	0.25	300	0.85 \pm 0.2
HDIH2012-8N2J	8.2 \pm 5%	15	100	2.4	0.28	300	0.85 \pm 0.2
HDIH2012-10NJ	10 \pm 5%	15	100	2.1	0.30	300	0.85 \pm 0.2
HDIH2012-12NJ	12 \pm 5%	15	100	1.9	0.35	300	0.85 \pm 0.2
HDIH2012-15NJ	15 \pm 5%	15	100	1.6	0.40	300	0.85 \pm 0.2
HDIH2012-18NJ	18 \pm 5%	15	100	1.5	0.45	300	0.85 \pm 0.2
HDIH2012-22NJ	22 \pm 5%	18	100	1.4	0.50	300	0.85 \pm 0.2
HDIH2012-27NJ	27 \pm 5%	18	100	1.3	0.55	300	0.85 \pm 0.2
HDIH2012-33NJ	33 \pm 5%	18	100	1.2	0.60	300	0.85 \pm 0.2
HDIH2012-39NJ	39 \pm 5%	18	100	1.0	0.65	300	0.85 \pm 0.2
HDIH2012-47NJ	47 \pm 5%	18	100	0.9	0.70	300	0.85 \pm 0.2
HDIH2012-56NJ	56 \pm 5%	18	100	0.8	0.75	300	0.85 \pm 0.2
HDIH2012-68NJ	68 \pm 5%	18	100	0.7	0.80	300	0.85 \pm 0.2
HDIH2012-82NJ	82 \pm 5%	18	100	0.6	0.90	300	0.85 \pm 0.2



HDIH2012 (0805)

Part Number	Inductance (nH) Tolerance	Min.Q	Test Frequency (MHz)	Min.Self-resonant Frequency(GHz)	Max.DC Resistance (Ω)	Max Rated Current (mA).	Thickness (mm)
HDIH2012-R10J	100 \pm 5%	18	100	0.6	0.90	300	0.85 \pm 0.2
HDIH2012-R12J	120 \pm 5%	13	50	0.5	0.95	300	0.85 \pm 0.2
HDIH2012-R15J	150 \pm 5%	13	50	0.5	1.00	300	0.85 \pm 0.2
HDIH2012-R18J	180 \pm 5%	13	50	0.4	1.10	300	0.85 \pm 0.2
HDIH2012-R22J	220 \pm 5%	12	50	0.35	1.20	300	0.85 \pm 0.2
HDIH2012-R27J	270 \pm 5%	12	50	0.3	1.30	300	0.85 \pm 0.2
HDIH2012-R33J	330 \pm 5%	12	50	0.25	1.40	300	1.25 \pm 0.2
HDIH2012-R39J	390 \pm 5%	10	50	0.25	1.40	300	1.25 \pm 0.2
HDIH2012-R47J	470 \pm 5%	10	50	0.20	4.00	200	1.25 \pm 0.2
HDIH2012-R56J	560 \pm 5%	10	25	0.18	5.00	50	1.25 \pm 0.2
HDIH2012-R68J	680 \pm 5%	10	25	0.16	5.50	50	1.25 \pm 0.2

■ Packaging Quantity

Type	Pcs/Reel
060303/0201	15000PCS
100505/0402	10000PCS
160808/0603	4000PCS
201209/0805	4000PCS