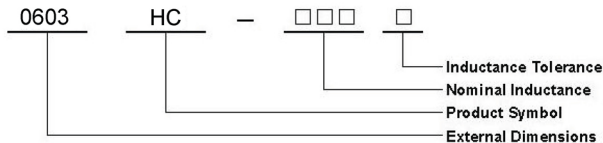


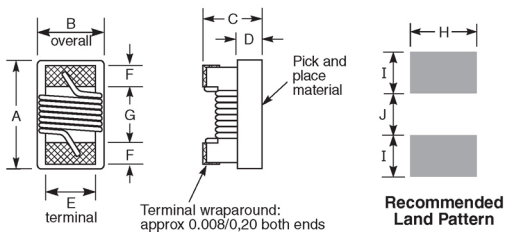
Chip Inductors - 0603HC (1608)

PRODUCT IDENTIFICATION



Inductance Tolerance: B=±0.1nH C=±0.2nH S=±0.3nH D=±0.5nH
 F=±1% G=±2% J=±5% K=±10%

SHAPE AND DIMENSIONS



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.071	0.044	0.040	0.015	0.030	0.013	0.034	0.040	0.025	0.025
1,80	1,12	1,02	0,38	0,76	0,33	0,86	1,02	0,64	0,64

Note: Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

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SPECIFICATIONS

With their high current ratings and ultra-small size, these chip inductors are ideal for today's high frequency, low voltage applications like mobile phones. They feature continuous current ratings up to 2.4 Amps DC and will

handle transient currents up to 50% higher. At low inductance values, their Q factors are also higher than our standard 0603CS Series.

Part number	Inductance ¹ (nH)	Percent tolerance ²	Q min ³	900 MHz		1.7 GHz		SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{rms} ⁶ (A)
				L typ	Q typ	L typ	Q typ			
0603HC-1N6J	1.6	5	24	1.67	49	1.65	63	12500	0.030	2.4
0603HC-3N6J	3.6	5	24	3.65	70	3.75	90	5900	0.048	2.3
0603HC-3N9J	3.9	5	25	3.74	70	3.90	90	5900	0.054	2.2
0603HC-6N8J	6.8	5	35	6.72	70	7.10	75	5800	0.054	2.1
0603HC-7N5J	7.5	5	38	7.33	70	7.90	68	3700	0.059	2.1
0603HC-10N_	10	5,2	38	9.70	73	10.5	57	3700	0.071	2.0
0603HC-12N_	12	5,2	38	12.3	68	14.5	41	3000	0.075	2.0
0603HC-15N_	15	5,2	38	15.5	65	17.6	40	2800	0.080	1.9
0603HC-18N_	18	5,2	40	19.5	62	25.0	40	2800	0.099	1.9
0603HC-22N_	22	5,2	42	24.0	61	31.5	26	2400	0.099	1.8
0603HC-24N_	24	5,2	42	25.8	55	35.0	21	2400	0.105	1.8

1. Inductance measured at 250 MHz using Frcoil SMD-A fixture in Agilent/HP 4286 impedance analyzer with Frcoil-provided correlation pieces.
2. Tolerances in bold are stocked for immediate shipment.
3. Q measured at 250 MHz using Agilent/HP 4291A with Agilent/HP 16193 test fixture.
4. SRF measured using Agilent/HP 8720D network analyzer and Frcoil SMD-D test fixture.
5. DCR measured on micro-ohmmeter and Frcoil test fixture.
6. Current that causes a 20°C temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.

Designer's Kit C339 contains 10 of each of all 5% parts

Core material Ceramic

Environmental RoHS compliant, halogen free optional

Terminations RoHS compliant silver-palladium-platinum-glass frit.

Weight 3.3 – 3.7 mg

Ambient temperature -40°C to +125°C with I_{rms} current, +125°C to +145°C with derated current

Storage temperature Component: -40°C to +155°C.

Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

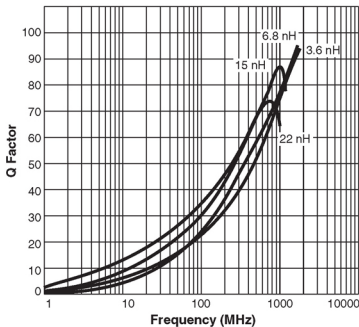
Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion hours, calculated per Telcordia SR-332

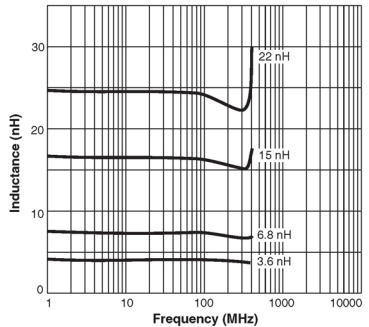
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TYPICAL ELECTRICAL CHARACTERISTICS

Typical Q vs Frequency



Typical L vs Frequency



Irms Derating

