

Chip Inductors - 0603HS Series (1608)

The world's smallest wirewound inductor! These coils offer far greater Q factors and higher self-

resonant frequencies than non-wirewound inductors.

| Part Number | Inductance ¹ nH | Percent Tolerance ² | Q Min ³ | SRF Min ⁴ MHz | R _{DC} Max ⁵ Ohms | I _{DC} Max ⁶ mA | 900 MHz | | 1.7 GHz | |
|----------------|-------------------------------|--------------------------------|--------------------|-----------------------------|--|--|---------|-------|---------|-------|
| | | | | | | | L Typ | Q Typ | L Typ | Q Typ |
| 0603HS-1N8TKBC | 1.8 @ 250 MHz | 10 | 16 | >6000 | .045 | 700 | 1.63 | 40 | 1.66 | 60 |
| 0603HS-3N9TKBC | 3.9 @ 250 MHz | 10 | 22 | >6000 | .080 | 700 | 3.95 | 53 | 3.96 | 79 |
| 0603HS-6N8TKBC | 6.8 @ 250 MHz | 10 | 27 | 5800 | .110 | 700 | 6.75 | 72 | 7.1 | 100 |
| 0603HS-10NTJBC | 10 @ 250 MHz | 5 | 31 | 4800 | .130 | 700 | 10 | 85 | 10.6 | 107 |
| 0603HS-12NTJBC | 12 @ 250 MHz | 5 | 35 | 4000 | .130 | 700 | 12.3 | 87 | 13.5 | 103 |
| 0603HS-15NTJBC | 15 @ 250 MHz | 5 | 35 | 4000 | .170 | 700 | 15.4 | 100 | 16.8 | 115 |
| 0603HS-18NTJBC | 18 @ 250 MHz | 5 | 35 | 3100 | .170 | 700 | 18.7 | 98 | 21.4 | 101 |
| 0603HS-22NTJBC | 22 @ 250 MHz | 5 | 38 | 3000 | .190 | 700 | 22.8 | 104 | 26.1 | 108 |
| 0603HS-27NTJBC | 27 @ 250 MHz | 5 | 40 | 2800 | .220 | 600 | 29.2 | 105 | 34.6 | 102 |
| 0603HS-33NTJBC | 33 @ 250 MHz | 5 | 40 | 2300 | .220 | 600 | 36 | 87 | 49.5 | 57 |
| 0603HS-39NTJBC | 39 @ 250 MHz | 5 | 40 | 2200 | .250 | 600 | 42.7 | 87 | 60.2 | 50 |
| 0603HS-47NTJBC | 47 @ 200 MHz | 5 | 38 | 2000 | .280 | 600 | 52.2 | 88 | 77.2 | 45 |
| 0603HS-56NTJBC | 56 @ 200 MHz | 5 | 38 | 1900 | .310 | 600 | 62.5 | 81 | 97 | 44 |
| 0603HS-68NTJBC | 68 @ 200 MHz | 5 | 37 | 1700 | .340 | 600 | 80.5 | 70 | 168 | 30 |
| 0603HS-72NTJBC | 72 @ 150 MHz | 5 | 34 | 1700 | .490 | 400 | 82.0 | 74 | 135 | 35 |
| 0603HS-82NTJBC | 82 @ 150 MHz | 5 | 34 | 1700 | .540 | 400 | 96.2 | 74 | 177 | 30 |
| 0603HS-R10TJBC | 100 @ 150 MHz | 5 | 34 | 1400 | .580 | 400 | 124 | 70 | — | — |
| 0603HS-R11TJBC | 110 @ 150 MHz | 5 | 32 | 1350 | .610 | 300 | 138 | 67 | — | — |
| 0603HS-R12TJBC | 120 @ 150 MHz | 5 | 32 | 1300 | .650 | 300 | 166 | 60 | — | — |

1. Inductance measured using Coilcraft SMD-A fixture in HP4191A impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.

2. Bold number indicates standard tolerance. When ordering other tolerances, replace the third to the last letter in the part number with the proper tolerance code: F=1%, G=2%, J=5%, K=10%, M=20%. (e.g. 0603HS-1N8XJBC for a 5% tolerance part.)

3. Q measured using HP4291A with HP16193 test fixture and on HP8753B with Coilcraft SMD-E test fixture.

4. SRF measured using HP8753B network analyzer and Coilcraft SMD-D test fixture.

5. R_{DC} measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.

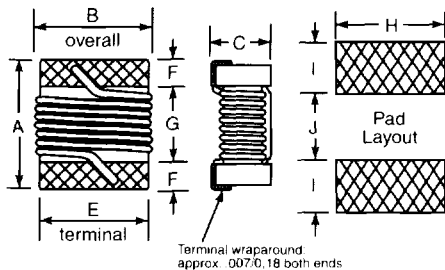
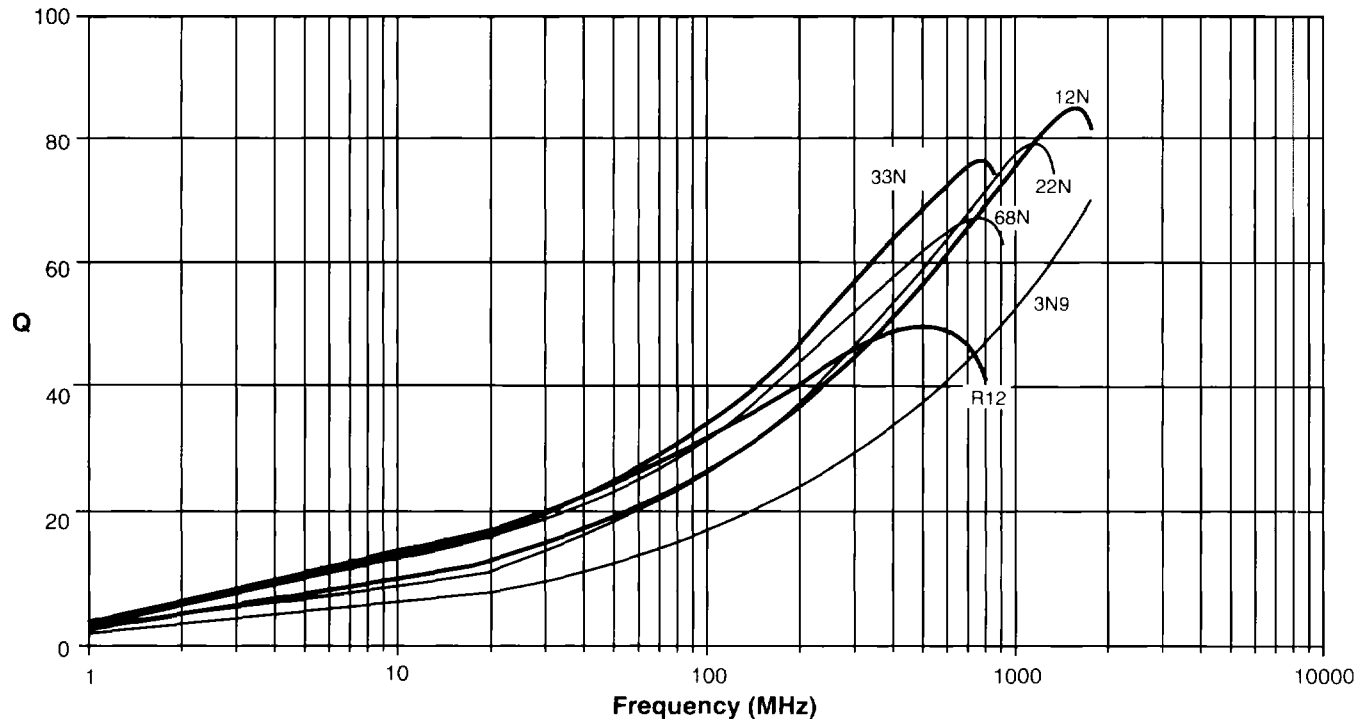
6. For 15°C rise.

Document 175-1 Revised 4/30/96

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web http://www.coilcraft.com

0603HS Series (1608)

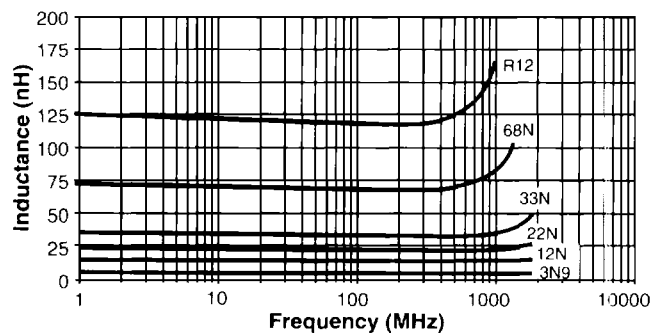
TYPICAL Q vs FREQUENCY



| A | B | C | E | F | G | H | I | J |
|------|------|------|------|------|------|------|------|------|
| Max. | Max. | Max. | | | | | | |
| .067 | .045 | .040 | .030 | .013 | .034 | .040 | .025 | .025 |
| 1.70 | 1.14 | 1.02 | 0.76 | 0.33 | 0.86 | 1.02 | 0.64 | 0.64 |

Parts/Reel: 7" 2,000; 13" 7,500
Tape width: 8mm

L vs FREQUENCY



Coilcraft

Document 175-2 Revised 4/30/96

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web http://www.coilcraft.com