RoHS/ REACH COMPLIANT

Halogen Free

Wirewound Ferrite Beads 0603AF (1608)

- Higher performance than other surface mount ferrite beads in the market
- High impedance across wide bandwidth; up to GHz band
- Extremely low DCR for high current applications
- Ferrite construction and heavy gauge wire for high current handling
- Eliminates high frequency noise in power supplies or RF signal isolation applications

Part number[1]	Inductance[2] ±5% (nH)	Impedance typ (Ohms) 100 MHz	Impedance typ (Ohms) 900 MHz	SRF typ[4] (MHz)	DCR max[5] (Ohms)	Irms[6] (A)	Color code[7]
0603AF-15NXJR_	15 @ 7.9 MHz	8.83	74.77	3500	0.023	2.1	Yellow
0603AF-33NXJR_	33 @ 7.9 MHz	18.69	164.8	2300	0.028	1.9	Red
0603AF-39NXJR_	39 @ 7.9 MHz	22.3	198.9	2200	0.115	1.0	Green
0603AF-47NXJR_	47 @ 7.9 MHz	28.44	243.4	2250	0.052	1.7	White
0603AF-50NXJR_	50 @ 7.9 MHz	30.2	268.4	1830	0.052	1.7	Violet
0603AF-68NXJR_	68 @ 7.9 MHz	38.3	373.9	1500	0.150	0.88	Gray
0603AF-72NXJR_	72 @ 7.9 MHz	45.64	418.0	1800	0.065	1.5	Blue
0603AF-85NXJR_	85 @ 7.9 MHz	50.8	504.3	1600	0.065	1.5	Brown
0603AF-111XJR_	110 @ 7.9 MHz	68.31	754.1	1230	0.060	1.6	Red
0603AF-121XJR_	120 @ 7.9 MHz	70.51	861.1	1150	0.089	1.4	Black
0603AF-151XJR_	150 @ 7.9 MHz	87.6	959.8	1050	0.093	1.5	Yellow
0603AF-201XJR_	200 @ 7.9 MHz	117.4	1732.8	880	0.115	1.4	Green
0603AF-241XJR_	240 @ 7.9 MHz	142.8	2226	900	0.12	0.85	Violet
0603AF-271XJR_	270 @ 7.9 MHz	172.2	3102	750	0.22	0.68	Brown
0603AF-361XJR_	360 @ 7.9 MHz	213.7	3696	700	0.21	0.65	Blue
0603AF-391XJR_	390 @ 7.9 MHz	231.6	5033.3	700	0.300	0.64	Black
0603AF-421XJR_	420 @ 7.9 MHz	258.6	5199	685	0.33	0.61	Red
0603AF-471XJR_	470 @ 7.9 MHz	298.6	6332	575	0.37	0.61	Orange
0603AF-561XJR_	560 @ 7.9 MHz	363.5	5135	515	0.49	0.53	Blue
0603AF-601XJR_	600 @ 7.9 MHz	354.9	7686.5	540	0.552	0.51	Blue
0603AF-681XJR_	680 @ 7.9 MHz	434.8	6312	530	0.46	0.49	Orange
0603AF-821XJR_	820 @ 7.9 MHz	526.5	210.7	325	0.58	0.42	Green
0603AF-102XJR_	1000 @ 7.9 MHz	665.8	3993	400	0.84	0.40	Black
0603AF-152XJR_	1500 @ 7.9 MHz	940.1	3116	330	1.30	0.28	Orange
0603AF-222XJR_	2200 @ 7.9 MHz	3808	64.27	85	1.10	0.32	Red
0603AF-472XJR_	4700 @ 7.9 MHz	745.7	48.14	60	1.50	0.26	Yellow
0603AF-103XJR_	10000 @ 2.5 MHz	1271	124.6	40	4.50	0.18	Gray

1. When ordering, please specify **termination** and **packaging** codes:

0603AF-103XJRW

Termination: R = RoHS matte Sn over Ni over Ag-Pt-glass frit.
Special order:
Q = RoHS Sn/Ag/Cu (95.5/4.0/0.5)
P = Not RoHS Sn/Pb (63/37).

Packaging: W = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

Y = 13" machine-ready reel. EIA-481 punched paper tape. Factory order only, not stocked (10000 parts per full reel).

U = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from U to W.

2. Inductance measured at 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
3. Q measured on Agilent/HP 4395A with Agilent/HP 16193 test fixture.
4. SRF measured using Agilent/HP 8753D network analyzer with Coilcraft SMD-D test fixture.
5. DCR measured on Cambridge Technology Micro-ohmmeter.
6. Current that causes a 15°C temperature rise from 25°C ambient. Because of their open construction, these parts will not saturate. This information is for reference only and does not represent absolute maximum ratings.
7. Each part is marked with a single dot. The color dots are not unique identifiers and correspond to multiple inductance values.
8. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

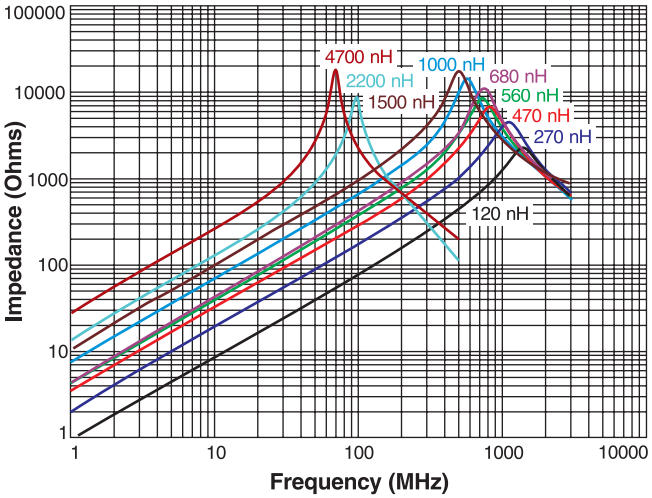
Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

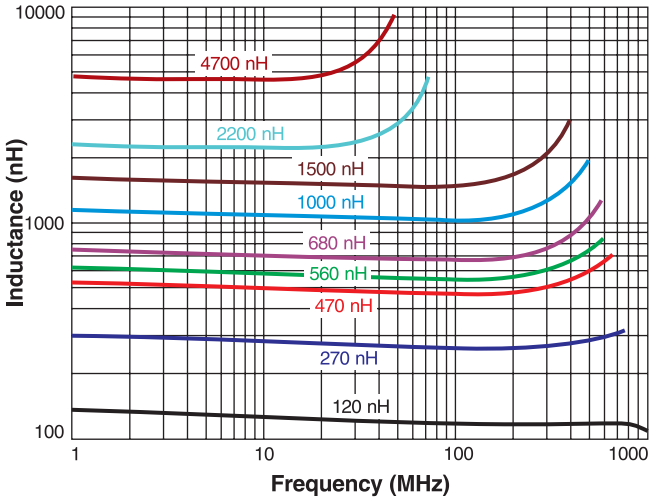
Document 1480-1 Revised 08/06/21

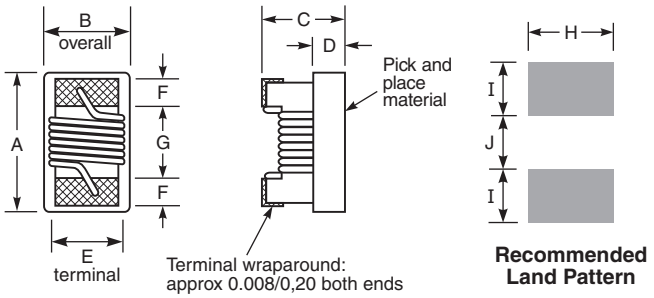
Wirewound Ferrite Beads – 0603AF Series

Typical Impedance vs Frequency



Typical L vs Frequency





A max	B max	C max	D ref	E	F	G	H	I	J	
0.071	0.044	0.036	0.015	0.030	0.013	0.034	0.040	0.025	0.025	inches
1,80	1,12	0,91	0,38	0,76	0,33	0,86	1,02	0,64	0,64	mm

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

Designer's Kit C439 contains 10 each of all values

Core material Ferrite

Environmental RoHS compliant, halogen free

Terminations RoHS matte Sn over Ni over Ag-Pt-glass frit. Other terminations available at additional cost

Weight 4.3 – 5.7 mg

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature +100°C (ambient + temp rise)

Storage temperature Component: –40°C to +100°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) +50 to +300 ppm/°C

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

Packaging 2000/7″ reel; 10000/13″ reel; Paper tape: 8 mm wide, 1.0 mm thick, 4 mm pocket spacing

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Coilcraft
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg