



Wirewound Ferrite Beads 0402AF (1005)

- 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 (nH)	Percent Tolerance	Impedance typ (Ohms)		SRF typ ³ (MHz)	DCR max ⁴ (Ohms)	Irms ⁵ (mA)
			100 MHz	900 MHz			
0402AF-200XJL_	20	5	11.23	82.23	2600	0.050	1600
0402AF-220XJL_	22	5,3,2	12.49	94.90	2500	0.065	1300
0402AF-330XJL_	33	5	18.91	140.7	2300	0.060	1400
0402AF-360XJL_	36	5,3,2	20.17	155.8	2300	0.075	1300
0402AF-390XJL_	39	5,3,2	22.58	171.3	2200	0.115	830
0402AF-510XJL_	51	5,3,2	28.76	216.5	1930	0.070	1100
0402AF-560XJL_	56	5	31.20	237.4	1900	0.095	1000
0402AF-720XJL_	72	5	40.27	308.6	1650	0.100	1000
0402AF-780XJL_	78	5,3,2	44.19	341.6	1600	0.130	970
0402AF-101XJL_	100	5,3,2	62.13	508.2	1400	0.160	900
0402AF-141XJL_	140	5,3,2	78.73	624.1	1220	0.260	630
0402AF-181XJL_	180	5,3,2	99.92	824.7	1150	0.280	560
0402AF-201XJL_	200	5	116.4	1094	1000	0.440	400
0402AF-221XJL_	220	5,3,2	126.1	1042	1150	0.530	380
0402AF-251XJL_	250	5	140.2	1212	900	0.360	520
0402AF-271XJL_	270	5,3,2	156.2	1312	860	0.550	360
0402AF-301XJL_	300	5,3,2	173.8	1534	860	0.410	420
0402AF-331XJL_	330	5	190.1	1829	820	0.560	350
0402AF-361XJL_	360	5	207.0	1899	810	0.575	360
0402AF-391XJL_	390	5	222.4	2327	760	0.750	300
0402AF-421XJL_	420	5	245.4	2250	700	0.700	340
0402AF-471XJL_	470	5,3,2	281.5	2659	650	0.730	310
0402AF-561XJL_	560	5,3,2	331.3	3593	600	0.920	200

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

0402AF-561XJLW

Tolerance: G = 2% H = 3% J = 5%

(Table shows stock values and tolerances in bold.)

Termination: L = RoHS compliant gold over nickel over silver-palladium-glass frit.
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (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).

Q = 7" machine-ready reel. EIA-481 punched paper tape (5000 parts per full reel).

Y = 7" machine-ready reel. EIA-481 punched paper tape. Factory order only, not stocked (10000 parts per full reel).

U = 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 7.9 MHz, 0.1 Vrms, using an Agilent/HP 4286A LCR meter or equivalent with a Coilcraft SMD-F test fixture and Coilcraft-provided correlation pieces.

3. SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.

4. DCR measured on Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.

5. 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.

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

COILCRAFT ACCURATE
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Document 1478-1 Revised 08/06/21

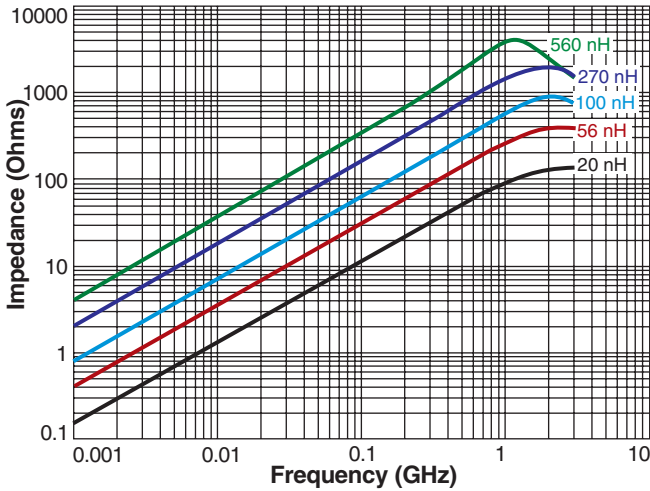
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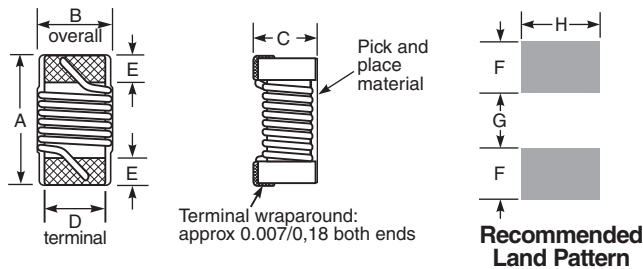
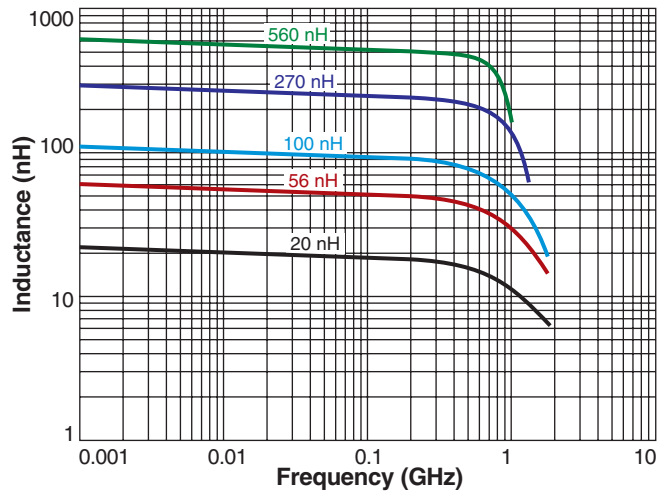


Chip Inductors – 0402AF Series

Typical Impedance vs Frequency



Typical L vs Frequency



Amax ²	Bmax	Cmax ³	D	E	F	G	H
0.044	0.026	0.026	0.020	0.009	0.017	0.018	0.026
1,12	0,66	0,66	0,51	0,23	0,43	0,46	0,66
							mm

- Notes:**
1. Unless otherwise indicated, all dimensions are nominal.
 2. Length dimension (A) is before optional solder application. Maximum dimension including solder is 0.045 in / 1.143 mm.
 3. Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

Designer's Kit C397 contains 20 each of all values

Core material Ferrite

Terminations RoHS compliant gold over nickel over silver-palladium-glass frit. Other terminations available at additional cost.

Weight 0.9 – 1.1 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) +25 to +150 ppm/°C

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

Packaging 2000 or 5000 or 10000 per 7" reel.

Paper tape: 8 mm wide, 0.68 mm thick, 2 mm pocket spacing

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).



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Document 1478-2 Revised 08/06/21

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