



# Ferrite Chip Inductors - 0805AF (2012)

- Higher inductance values than ceramic 0805 inductors
- Inductance values from 0.11  $\mu\text{H}$  to 22  $\mu\text{H}$
- Heavier gauge wire for low DCR
- Ferrite construction for high current handling

Part number <sup>1</sup>	Inductance <sup>2</sup> $\pm 5\%$ ( $\mu\text{H}$ )	Q typ <sup>3</sup>	Impedance typ (Ohms)	SRF typ <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	Irms <sup>6</sup> (mA)	Color code <sup>7</sup>
0805AF-111XJR_	0.11 @ 7.9 MHz	18 @ 7.9 MHz	370 @ 500 MHz	1260	0.05	940	Brown
0805AF-681XJR_	0.68 @ 7.9 MHz	19 @ 7.9 MHz	430 @ 100 MHz	425	0.30	660	Orange
0805AF-102XJR_	1.0 @ 7.9 MHz	17 @ 7.9 MHz	670 @ 100 MHz	355	0.39	650	Yellow
0805AF-122XJR_	1.2 @ 7.9 MHz	19 @ 7.9 MHz	860 @ 100 MHz	375	0.64	440	Brown
0805AF-152XJR_	1.5 @ 7.9 MHz	20 @ 7.9 MHz	1000 @ 100 MHz	285	0.74	390	Green
0805AF-182XJR_	1.8 @ 7.9 MHz	20 @ 7.9 MHz	1360 @ 100 MHz	300	0.98	370	Blue
0805AF-222XJR_	2.2 @ 7.9 MHz	19 @ 7.9 MHz	840 @ 50 MHz	105	0.98	350	Brown
0805AF-272XJR_	2.7 @ 7.9 MHz	19 @ 7.9 MHz	1050 @ 50 MHz	100	1.16	320	Violet
0805AF-332XJR_	3.3 @ 7.9 MHz	19 @ 7.9 MHz	1670 @ 50 MHz	85	1.20	330	Gray
0805AF-472XJR_	4.7 @ 7.9 MHz	18 @ 7.9 MHz	950 @ 25 MHz	55	1.50	280	Black
0805AF-682XJR_	6.8 @ 7.9 MHz	18 @ 7.9 MHz	450 @ 10 MHz	37	1.90	240	Brown
0805AF-103XJR_	10 @ 2.5 MHz	18 @ 2.5 MHz	740 @ 10 MHz	26	2.20	230	Red
0805AF-153XJR_	15 @ 2.5 MHz	17 @ 2.5 MHz	1300 @ 10 MHz	20	4.25	150	Yellow
0805AF-223XJR_	22 @ 2.5 MHz	17 @ 2.5 MHz	1620 @ 10 MHz	21	6.70	120	Green

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

**0805AF-103XJR\_C**

**Termination: R** = RoHS compliant matte tin over nickel over silver-platinum-glass frit.  
Special order: **Q** = RoHS tin-silver-copper (95.5/4/0.5) or **P** = non-RoHS tin-lead (63/37).

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

**B** = 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 B to C.

- Inductance measured at 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
  - Q measured on Agilent/HP 4395A with Agilent/HP 16193 test fixture.
  - SRF measured using Agilent/HP 8753D network analyzer with Coilcraft SMD-D test fixture.
  - DCR measured on Cambridge Technology Micro-ohmmeter.
  - Current that causes a 15°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
  - Each part is marked with a single dot. The color dots are not unique identifiers and correspond to multiple inductance values.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Designer's Kit C450** contains 10 of each value

**Core material** Ferrite

**Environmental** RoHS compliant without exemption, halogen free

**Terminations** RoHS compliant matte tin over nickel over silver-platinum-glass frit. Other terminations available at additional cost.

**Weight** 16.7– 18.0 mg

**Ambient temperature** -40°C to +85°C with Irms current

**Maximum part temperature** +100°C (ambient + temp rise). [Derating.](#)

**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

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

**Packaging** 2000/7" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.65 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

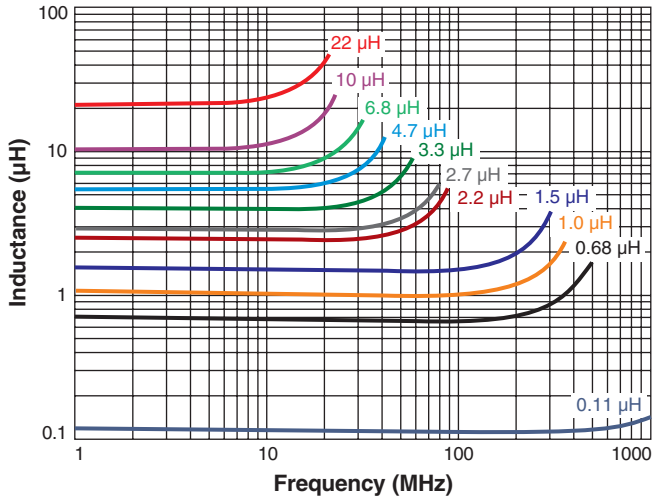
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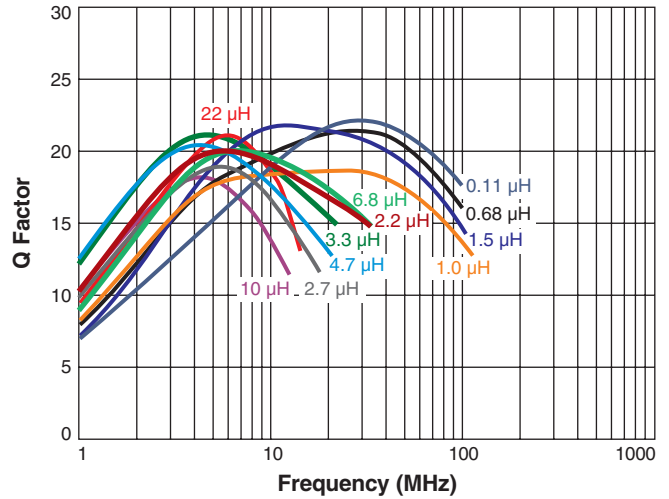


# Ferrite Chip Inductors – 0805AF Series

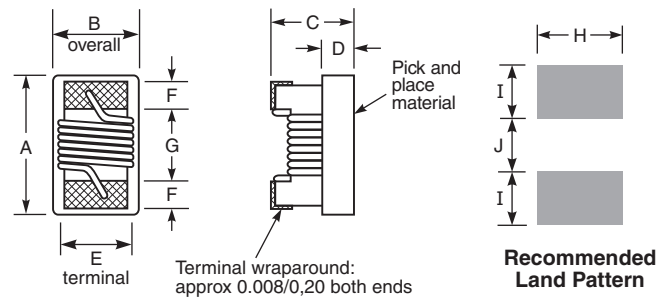
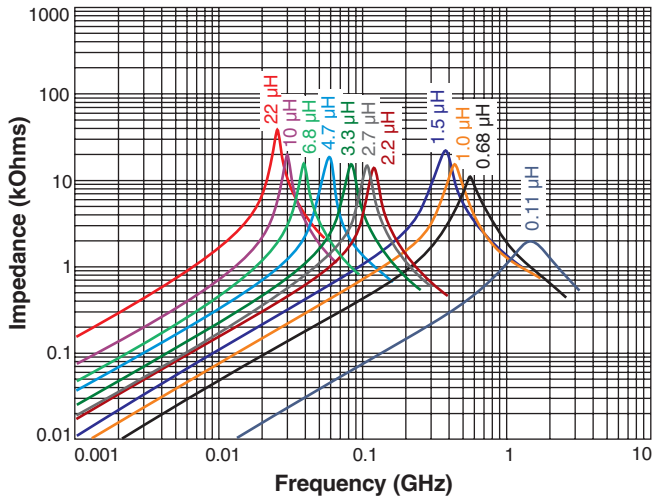
## Typical L vs Frequency



## Typical Q vs Frequency



## Typical Impedance vs Frequency



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.090	0.068	0.060	0.020	0.050	0.016	0.040	0.070	0.040	0.030
2,29	1,73	1,52	0,51	1,27	0,41	1,02	1,78	1,02	0,76

**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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