



Ferrite Chip Inductors - 0805AF (2012)

- Higher inductance values than ceramic 0805 inductors
- Inductance values from 0.11 μ H to 22 μ H
- Heavier gauge wire for low DCR
- Ferrite construction for high current handling

Part number ¹	Inductance ² $\pm 5\%$ (μ H)	Q typ ³	Impedance typ (Ohms)	SRF typ ⁴ (MHz)	DCR max ⁵ (Ohms)	Irms ⁶ (mA)	Color code
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).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

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.

7. 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 I rms current, +85°C to +100°C with derated current

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)

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

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

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 with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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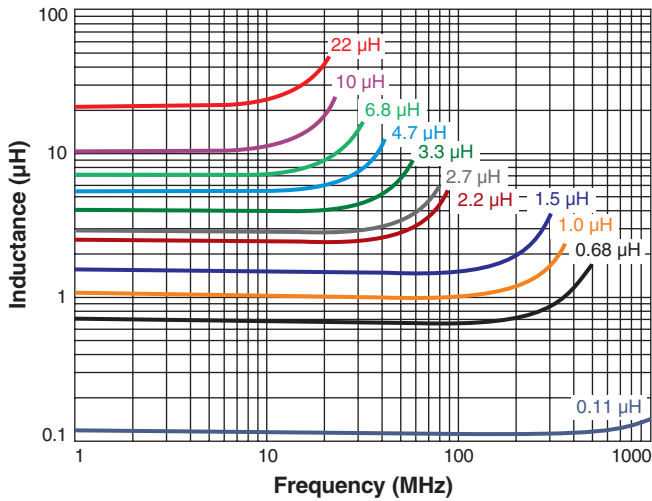
S-Parameter files
ON OUR WEB SITE

SPICE models
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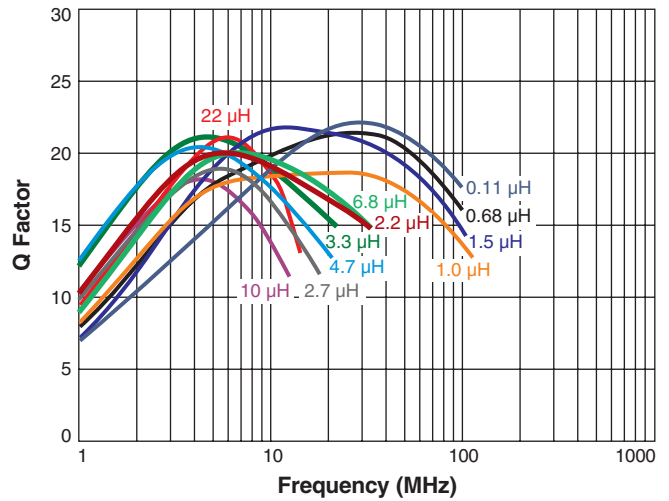


Ferrite Chip Inductors – 0805AF Series

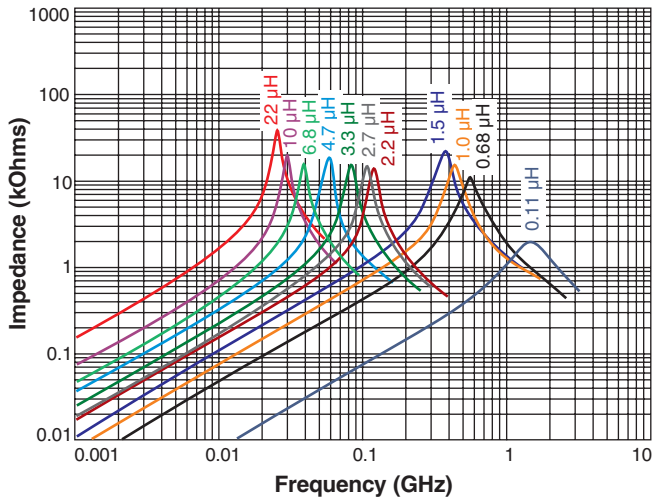
Typical L vs Frequency



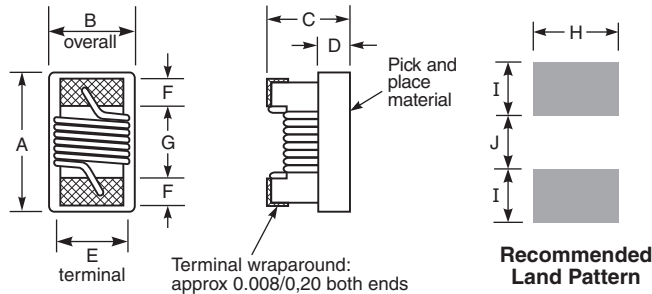
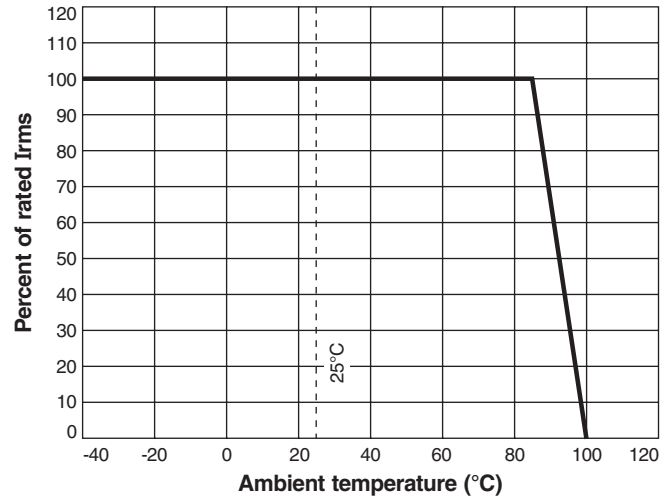
Typical Q vs Frequency



Typical Impedance vs Frequency



Irms Derating



A	B	C	D	E	F	G	H	I	J
max	max	max	ref	E	F	G	H	I	J
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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