

Surface Mount Ferrite Inductors



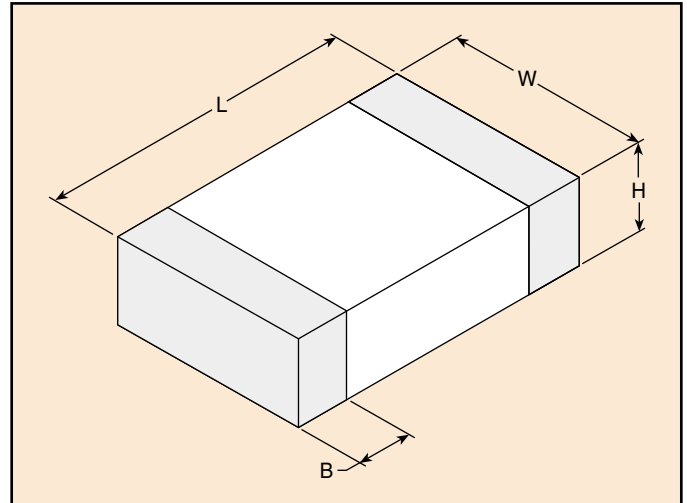
Ferrite Inductors

Features

- Multilayer design
- Available in standard EIA/EIAJ chip sizes (0603/1608, 0805/2012, 1206/3216, etc.)
- Excellent solderability is achieved from a nickel barrier with a solder overplate
- Small footprint compared to wire wound inductors
- Prevents crosstalk with closed magnetic circuit
- Broad range of inductance values available from 47 nH to 4,700 nH
- High Q characteristics
- Parts are suitable for flow or re-flow soldering
- Available in tape and reel for easy placement
- Provides high reliability in a temperature range of -25°C to +85°C over a wide range of humidity
- Prevents electromagnetic interference to signals in high density circuits

Applications

- Telecommunications equipment (cellular phones, cordless phones, faxes and ISDN's)
- Personal computers including disc drives, CD-ROM, etc.
- Digital audio/visual equipment (TV, HDTV, VTR, DVD, CATV tuners, etc.)
- Measuring equipment
- Most consumer electronics



Part Numbering System

Example: **FIN-0805-C470M3**

FIN	-	0805	-	C	470	M	3
Series		Part Size		Material Characteristic	Inductance L (nH)	Tolerance Code	Packaging
Ferrite Inductor		EIA Size (Length x Width)		Determined by the desired electrical characteristic	47(0) (0) = the # of zeros that will follow the first two digits Example: 47(0) = 47 followed by 0 zeros = 47 nH	M = ±20% K = ±10% J = ±5%	7 = 7 inch reel 3 = 13 inch reel B = Bulk

Land Patterns and Soldering Temperature Profiles

- See page 33.

Packaging Specifications and Storage Requirements

- See page 34.

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Physical Characteristics

Size		Physical Dimensions			
EIA	EIAJ	Length (L)	Width (W)	Height (H)	Termination Band (B)
0603	1608	0.063 ± 0.006 (1.60 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.014 ± 0.006 (0.36 ± 0.15)
0805	2012	0.079 ± 0.008 (2.00 ± 0.20)	0.049 ± 0.008 (1.25 ± 0.20)	<2.7 µH 0.035 ± 0.008 (0.90 ± 0.20) ≥2.7 µH 0.049 ± 0.008 (1.25 ± 0.20)	0.020 ± 0.010 (0.51 ± 0.25)
1206	3216	0.126 ± 0.008 (3.20 ± 0.20)	0.063 ± 0.008 (1.60 ± 0.20)	0.043 ± 0.008 (1.10 ± 0.20)	0.020 ± 0.010 (0.51 ± 0.25)

Dimensions in inches (mm)

Electrical Characteristics

Standard FIN-0603 Sizes

Part Number	Inductance L (nH)	Min. Q	L, Q Test Frequency (MHz)	Min. SRF (MHz)	Max. DCR (Ohm)	Max. Current (mA)
FIN-0603-C470*	47			260		
FIN-0603-C680*	68	10	50	250	0.3	50
FIN-0603-C820*	82			245		
FIN-0603-C101*	100			240	0.5	
FIN-0603-C121*	120			205	0.5	
FIN-0603-C151*	150	15	25	180	0.6	50
FIN-0603-C181*	180			165	0.6	
FIN-0603-C221*	220			150	0.8	
FIN-0603-C271*	270			136	0.8	
FIN-0603-C331*	330			125	0.85	
FIN-0603-C391*	390			110	1.0	
FIN-0603-C471*	470	15	25	105	1.35	35
FIN-0603-C561*	560			95	1.55	
FIN-0603-C681*	680			90	1.7	
FIN-0603-C821*	820			85	2.1	
FIN-0603-G102*	1,000			75	0.6	
FIN-0603-G122*	1,200	35	10	65	0.8	25
FIN-0603-G152*	1,500			60	0.8	
FIN-0603-G182*	1,800			55	0.95	
FIN-0603-G222*	2,200			50	1.15	
FIN-0603-G272*	2,700			45	1.35	
FIN-0603-G332*	3,300	35	10	40	1.55	15
FIN-0603-G392*	3,900			35	1.7	
FIN-0603-G472*	4,700			33	2.1	

Note: * Please add tolerance and packaging code at the end of part.

Standard FIN-0402 Sizes - Available 2nd Quarter 2001



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Electrical Characteristics *continued*

Standard FIN-0805 Sizes

Part Number	Inductance L (nH)	Min. Q	L, Q Test Frequency (MHz)	Min. SRF (MHz)	Max. DCR (Ohm)	Max. Current (mA)
FIN-0805-C470*	47	15	50	320	0.2	300
FIN-0805-C680*	68			280		
FIN-0805-C820*	82			255		
FIN-0805-C101*	100	20	25	235	0.3	250
FIN-0805-C121*	120			220	0.3	
FIN-0805-C151*	150			200	0.4	
FIN-0805-C181*	180			185	0.4	
FIN-0805-C221*	220			170	0.5	
FIN-0805-C271*	270			150	0.5	
FIN-0805-C331*	330			145	0.55	
FIN-0805-C391*	390	25	25	135	0.65	200
FIN-0805-C471*	470			125	0.65	
FIN-0805-C561*	560	25	25	115	0.75	150
FIN-0805-C681*	680			105	0.8	
FIN-0805-C821*	820			100	1.0	
FIN-0805-G102*	1,000			45	10	
FIN-0805-G122*	1,200	65	0.5			
FIN-0805-G152*	1,500	60	0.5			
FIN-0805-G182*	1,800	55	0.6			
FIN-0805-G222*	2,200	45	10	50	0.65	30
FIN-0805-G272*	2,700			45	0.75	
FIN-0805-G332*	3,300			41	0.8	
FIN-0805-G392*	3,900			38	0.9	
FIN-0805-G472*	4,700			35	1.0	
FIN-0805-G103*	10,000			50	2	
FIN-0805-G123*	12,000	22	1.25			

Note: * Please add tolerance and packaging code at the end of part.

Standard FIN-1206 Sizes

Part Number	Inductance L (nH)	Min. Q	L, Q Test Frequency (MHz)	Min. SRF (MHz)	Max. DCR (Ohm)	Max. Current (mA)
FIN-1206-C470*	47	20	50	320	0.15	300
FIN-1206-C680*	68			280	0.25	
FIN-1206-C101*	100	20	25	235	0.25	250
FIN-1206-C121*	120			220	0.3	
FIN-1206-C151*	150			200	0.3	
FIN-1206-C181*	180			185	0.4	
FIN-1206-C221*	220			170	0.4	
FIN-1206-C271*	270			150	0.5	
FIN-1206-C331*	330			145	0.6	
FIN-1206-C391*	390	25	25	135	0.5	200
FIN-1206-C471*	470			125	0.6	
FIN-1206-C561*	560	25	25	115	0.7	150
FIN-1206-C681*	680			105	0.8	
FIN-1206-C821*	820			100	0.9	
FIN-1206-G102*	1,000			45	10	
FIN-1206-G122*	1,200	65	0.5			
FIN-1206-G152*	1,500	45	10	60	0.5	50
FIN-1206-G182*	1,800			55	0.5	
FIN-1206-G222*	2,200			50	0.6	
FIN-1206-G272*	2,700			45	0.6	
FIN-1206-G332*	3,300			41	0.7	
FIN-1206-G392*	3,900			38	0.8	
FIN-1206-G472*	4,700	35	0.85	45		
FIN-1206-G562*	5,600	45	4	32	0.9	25
FIN-1206-G682*	6,800			29	0.9	
FIN-1206-G103*	10,000			24	1.0	

Note: * Please add tolerance and packaging code at the end of part.

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Typical Inductance Characteristics (Curves not listed are available upon request or at our website.)

