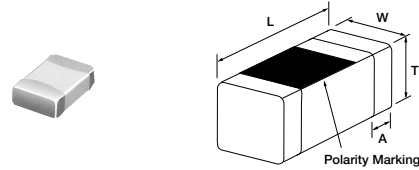


The LL2012-FHL Series is a multilayer ceramic chip inductor with an EIA standard 0805 footprint, lead-free terminations, and expanded electrical specifications with respect to inductance and Q.



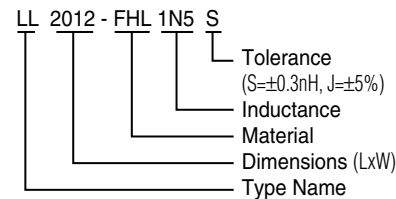
Unit: mm

## Features

- Inductance range: 1.5-680nH (E-12 Series)
- Miniature size: 0805 footprint (2mm x 1.2mm)
- Inductance specified at 100MHz and 800MHz
- Laminated ceramic allows high SRF
- Q: 49 ~ 96 typical (at 1800MHz)
- Temperature coefficient of inductance: +250ppm/°C
- Temperature range: -40°C to +100°C
- S-parameter data available upon request
- Packaged on tape in 4,000 (L ≤ 39nH) and 3,000 (L ≥ 47nH) piece quantities
- Reflow solderable
- Lead-free terminations

Type	L (mm)	W (mm)	T (mm)	A (mm)
LL2012FHL	2.0±0.2	1.25±0.2	0.60±0.2 0.85±0.3 1.00±0.3 1.20±0.3	0.5±0.3

## Part Numbering



## STANDARD PARTS SELECTION GUIDE

### TYPE LL2012-FHL

TOKO Part Number	Inductance & Tolerance					Q min.	Q (Typ.)						SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.	
	at 100MHz		at 800 (500, 300, 200) MHz				100 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz				1800 MHz
	Lo (nH)	L Tol.*	Lo (nH)	L Tol.*	Freq. (MHz)											
LL2012-FHL1N5S	1.5	S	1.5	± 0.5nH	800	11	15.3	27.5	37.5	52.0	61.5	79.3	4000	0.10	300	
LL2012-FHL1N8S	1.8	S	1.7	± 0.5nH	800	12	14.0	25.0	33.9	46.6	54.0	78.4	4000	0.10	300	
LL2012-FHL2N2S	2.2	S	2.1	± 0.5nH	800	12	16.7	29.5	39.9	55.0	62.6	96.4	3800	0.10	300	
LL2012-FHL2N7S	2.7	S	2.42	± 0.5nH	800	12	15.5	27.5	36.8	50.8	57.8	89.0	3600	0.10	300	
LL2012-FHL3N3S	3.3	S	3.0	± 0.5nH	800	12	15.4	29.0	39.2	52.6	59.2	96.4	3400	0.10	300	
LL2012-FHL3N9S	3.9	S	3.7	± 0.5nH	800	12	16.0	29.7	39.7	53.4	59.7	76.8	3200	0.10	300	
LL2012-FHL4N7S	4.7	S	4.6	± 0.5nH	800	12	16.5	30.4	40.9	54.3	61.0	81.0	2800	0.12	300	
LL2012-FHL5N6S	5.6	S	5.7	± 0.5nH	800	12	17.0	31.3	42.1	55.2	61.0	76.9	2800	0.15	300	
LL2012-FHL6N8J	6.8	J	6.7	± 10%	800	12	18.7	33.3	44.6	58.1	63.9	89.7	2100	0.15	300	
LL2012-FHL8N2J	8.2	J	8.2	± 10%	800	15	18.5	32.2	42.4	54.8	59.5	73.2	2000	0.18	300	
LL2012-FHL10NJ	10	J	10.2	± 10%	800	15	18.9	33.7	44.4	56.9	61.5	75.7	1600	0.20	300	
LL2012-FHL12NJ	12	J	12.7	± 10%	800	16	20.5	36.5	47.5	60.8	65.9	79.8	1350	0.22	300	
LL2012-FHL15NJ	15	J	15.8	± 10%	800	16	22.1	39.5	51.5	64.2	68.2	67.9	1350	0.24	300	
LL2012-FHL18NJ	18	J	19.5	± 10%	800	16	22.9	40.7	52.9	64.9	68.4	49.3	1200	0.26	300	
LL2012-FHL22NJ	22	J	24.5	± 10%	800	16	21.6	38.0	48.6	56.8	57.4	—	1100	0.28	300	
LL2012-FHL27NJ	27	J	31.2	± 10%	800	16	22.8	39.6	49.4	57.4	57.3	—	1100	0.30	300	
LL2012-FHL33NJ	33	J	38.5	± 10%	800	16	23.0	39.9	49.9	55.6	54.4	—	1000	0.40	300	
LL2012-FHL39NJ	39	J	50.7	± 10%	800	16	24.6	41.4	50.0	50.9	45.5	—	900	0.50	300	
LL2012-FHL47NJ	47	J	63.9	± 10%	800	17	24.8	41.8	49.5	47.4	39.4	—	800	0.55	300	
LL2012-FHL56NJ	56	J	62.7	± 10%	500	17	26.1	43.3	50.0	44.5	34.5	—	750	0.60	300	
LL2012-FHL68NJ	68	J	80.3	± 10%	500	17	25.7	41.8	46.2	33.6	18.1	—	700	0.65	300	
LL2012-FHL82NJ	82	J	103	± 10%	500	20	26.5	41.4	43.1	21.5	—	—	600	0.70	300	
LL2012-FHLR10J	100	J	142	± 10%	500	20	27.7	43.3	41.4	—	—	—	550	0.80	300	
LL2012-FHLR12J	120**	J	139	± 10%	300	16**	26.4	38.2	31.0	—	—	—	500	0.85	250	
LL2012-FHLR15J	150**	J	173	± 10%	300	16**	29.2	40.3	29.6	—	—	—	450	0.90	250	
LL2012-FHLR18J	180**	J	194	± 10%	200	10***	28.2	33.2	—	—	—	—	400	1.00	250	
LL2012-FHLR22J	220**	J	234	± 10%	200	10***	25.1	32.8	—	—	—	—	360	3.00	200	
LL2012-FHLR27J	270***	J	303	± 10%	200	11***	23.6	28.8	—	—	—	—	330	3.50	200	
LL2012-FHLR33J	330***	J	382	± 10%	200	11***	26.0	28.6	—	—	—	—	300	4.00	150	
LL2012-FHLR39J	390***	J	500	± 10%	200	11***	25.0	21.1	—	—	—	—	270	4.50	150	
LL2012-FHLR47J	470***	J	—	—	—	11***	25.5	—	—	—	—	—	240	5.00	50	
LL2012-FHLR56J	560***	J	—	—	—	11***	24.5	—	—	—	—	—	210	5.50	50	
LL2012-FHLR68J	680***	J	—	—	—	11***	26.5	—	—	—	—	—	180	6.00	50	

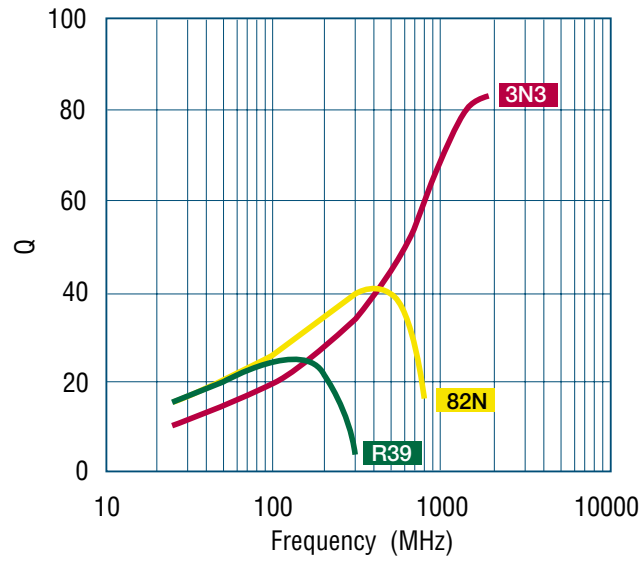
\* Add tolerance to part number: S=±0.3nH, J = ±5%

\*\*50MHz \*\*\*25MHz

Testing Conditions: (1) L,Q: Agilent 4291A/B (Test fixture Agilent 16192A) (2) SRF: Agilent 8719D, 8720D (3) RDC: Agilent 4338A/B

**ELECTRICAL CHARACTERISTICS**

**Q vs. Frequency**



**Inductance vs. Frequency**

