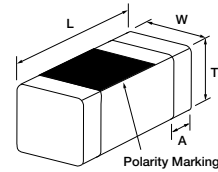


The LL1005-FHL Series is a multilayer ceramic chip inductor with an EIA standard 0402 footprint, lead-free terminations, and expanded electrical specifications with respect to inductance, Q, self-resonant frequency, and operating temperature range.



Unit: mm

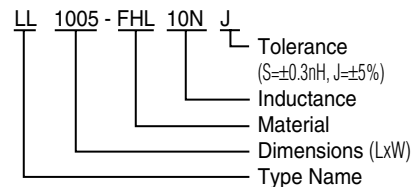


	L (mm)	W (mm)	T (mm)	A (mm)
1nH~68nH	1.0±0.05	0.5±0.05	0.5±0.05	0.25±0.1
82nH~100nH	1.0±0.1	0.5±0.1	0.5±0.1	0.25±0.1

## Features

- Inductance range: 1.0-100nH
- Miniature size: 0402 footprint (1.0mm x 0.5mm)
- Inductance specified at 100MHz and 800MHz
- Self-resonant frequency specified at ±15%
- Q: 8 ~ 50 typical (at 1800MHz)
- Temperature coefficient of inductance: +250ppm/°C
- Temperature range: -55°C to +125°C
- S-parameter data available upon request
- Packaged on tape and reel in 10,000 piece quantity
- Reflow solderable
- Lead-free terminations

## Part Numbering



## STANDARD PARTS SELECTION GUIDE

### TYPE LL1005-FHL

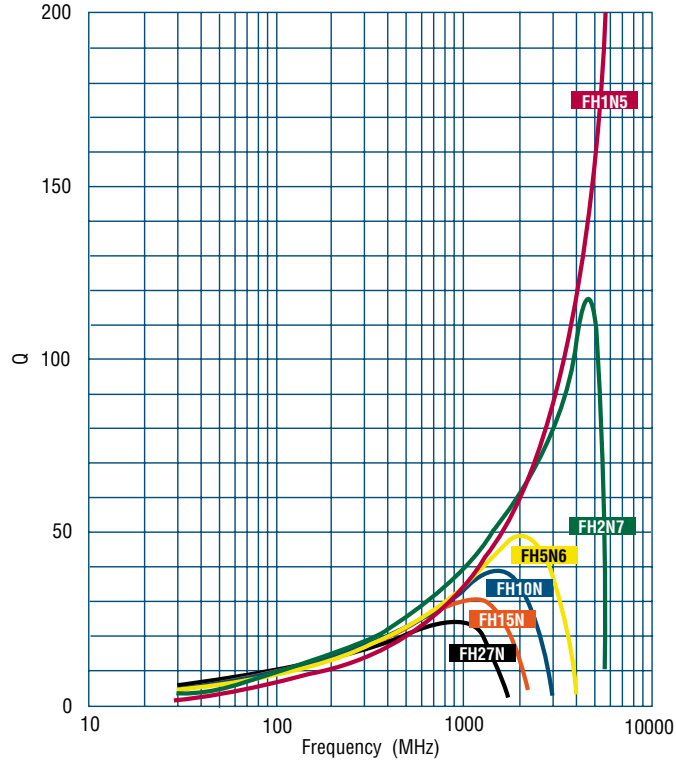
TOKO Part Number	Inductance & Tolerance					Q min.	Q (Typ.)						SRF (MHz)	RDC (Ω) max.	IDC (mA) max.	
	at 100MHz		at 800 (500) MHz		Freq. (MHz)		100 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz				1800 MHz
	Lo (nH)	L Tol.*	Lo (nH)	L Tol.*												
LL1005-FHL1N0S	1.0	S	0.93	± 0.5nH	800	7	8.7	15.5	21.0	25.5	31.5	42.5	20000 min	0.10	400	
LL1005-FHL1N2S	1.2	S	1.1	± 0.5nH	800	7	9.0	16.5	21.0	27.2	31.0	42.5	16000 min	0.10	400	
LL1005-FHL1N5S	1.5	S	1.4	± 0.5nH	800	8	9.6	17.5	22.5	28.1	31.5	44.0	15000 ± 15%	0.13	400	
LL1005-FHL1N8S	1.8	S	1.7	± 0.5nH	800	8	9.0	16.5	21.0	26.7	30.0	40.5	15000 ± 15%	0.14	400	
LL1005-FHL2N2S	2.2	S	2.0	± 0.5nH	800	8	10.0	17.5	23.0	29.6	33.0	44.5	13000 ± 15%	0.15	400	
LL1005-FHL2N7S	2.7	S	2.5	± 0.5nH	800	8	9.9	18.0	24.0	30.3	35.0	49.0	9600 ± 15%	0.15	400	
LL1005-FHL3N3S	3.3	S	3.1	± 0.5nH	800	8	9.7	17.0	23.0	28.5	33.5	47.5	9100 ± 15%	0.16	400	
LL1005-FHL3N9S	3.9	S	3.7	± 0.5nH	800	8	9.9	18.5	24.5	29.2	35.5	50.0	7400 ± 15%	0.18	300	
LL1005-FHL4N7S	4.7	S	4.4	± 0.5nH	800	9	10.2	18.0	23.0	30.3	33.0	42.5	7000 ± 15%	0.20	300	
LL1005-FHL5N6S	5.6	S	5.3	± 0.5nH	800	9	10.7	18.5	24.5	31.7	34.0	44.0	6100 ± 15%	0.22	300	
LL1005-FHL6N8J	6.8	J	6.5	± 10%	800	9	10.8	18.5	24.0	31.3	34.5	43.0	5600 ± 15%	0.23	300	
LL1005-FHL8N2J	8.2	J	7.9	± 10%	800	9	11.3	20.0	26.0	33.1	37.0	46.0	4700 ± 15%	0.25	300	
LL1005-FHL10NJ	10	J	9.7	± 10%	800	9	11.1	19.0	25.0	32.0	35.0	43.0	4300 ± 15%	0.30	300	
LL1005-FHL12NJ	12	J	12	± 10%	800	9	11.8	19.5	25.0	31.8	34.0	34.0	3300 ± 15%	0.40	300	
LL1005-FHL15NJ	15	J	15	± 10%	800	9	12.4	19.0	24.0	32.0	32.0	30.0	2800 ± 15%	0.50	300	
LL1005-FHL18NJ	18	J	18	± 10%	800	10	12.0	18.5	23.5	31.5	30.5	27.5	2800 ± 15%	0.60	300	
LL1005-FHL22NJ	22	J	23	± 10%	800	10	11.9	18.5	23.0	30.3	28.5	18.5	2500 ± 15%	0.70	300	
LL1005-FHL27NJ	27	J	30	± 10%	800	10	12.4	19.0	24.0	29.2	26.5	8.0	2100 ± 15%	0.85	300	
LL1005-FHL33NJ	33	J	36	± 10%	800	10	12.0	16.5	21.0	28.6	25.0	13.0	2100 ± 15%	1.00	200	
LL1005-FHL39NJ	39	J	44	± 10%	800	10	12.0	17.0	21.5	27.6	25.0	10.5	1900 ± 15%	1.10	200	
LL1005-FHL47NJ	47	J	50	± 10%	500	10	11.5	15.5	19.7	21.7	22.2	—	1500 ± 15%	1.30	200	
LL1005-FHL56NJ	56	J	60	± 10%	500	10	11.9	19.5	23.4	22.6	17.8	—	1400 ± 15%	1.50	200	
LL1005-FHL68NJ	68	J	77	± 10%	500	10	11.7	17.9	20.3	20.8	—	—	1300 ± 15%	1.70	180	
LL1005-FHL82NJ	82	J	95	± 10%	500	10	13.1	19.1	21.8	21.4	—	—	1150 ± 15%	1.90	150	
LL1005-FHLR10J	100	J	122	± 10%	500	10	13.2	19.1	20.0	18.8	—	—	1030 ± 15%	2.20	150	

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

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**

