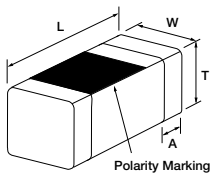
The LL1608-FSL Series is a multilayer ceramic chip inductor with an EIA standard 0603 footprint, lead-free terminations, and expanded electrical specifications with respect to inductance, Q, and self-resonant frequency.



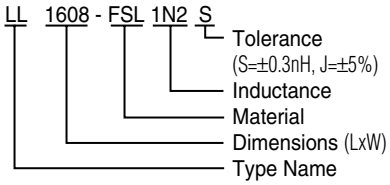
Unit: mm

Type	L (mm)	W (mm)	T (mm)	A (mm)
LL1608FSL	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2

Features

- Inductance range: 1.2-270nH (E-12 Series)
- Miniature size: 0603 footprint (1.6mm x 0.8mm)
- Inductance specified at 100MHz and 800MHz
- Laminated ceramic allows high SRF
- Self-resonant frequency specified at ±15%
- Q: 10 ~ 80 typical (at 1800MHz)
- High current handling, up to 1A
- Temperature coefficient of inductance: +250ppm/°C
- Temperature range: –40°C to +100°C
- S-parameter data available upon request
- Packaged on tape and reel in 4,000 piece quantity
- Reflow solderable
- Lead-free terminations

Part Numbering



STANDARD PARTS SELECTION GUIDE

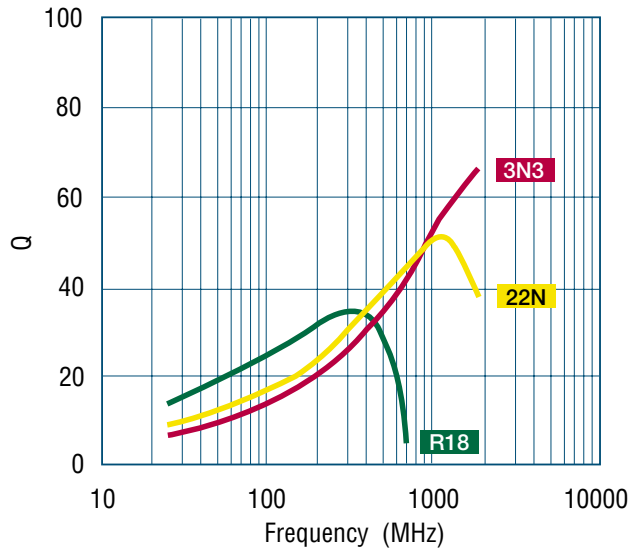
TYPE LL1608-FSL

TOKO Part Number	Inductance & Tolerance					Q min.	Q (Typ.)						SRF (MHz)	RDC (Ω) max.	IDC (mA) max.
	at 100MHz		at 800 (500,300,200) MHz												
	Lo (nH)	L Tol.*	Lo (nH)	L Tol.*	Freq. (MHz)	100 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz	1800 MHz			
LL1608-FSL1N2S	1.2	S	1.1	± 0.5nH	800	10	14.0	18.8	24.3	30.5	35.6	48.0	8000 min	0.10	1,000
LL1608-FSL1N5S	1.5	S	1.4	± 0.5nH	800	10	14.1	27.9	38.8	49.1	56.8	80.0	7000 min	0.10	1,000
LL1608-FSL1N8S	1.8	S	1.7	± 0.5nH	800	10	11.6	20.7	27.9	36.4	40.2	52.0	12000 ± 15%	0.10	1,000
LL1608-FSL2N2S	2.2	S	2.1	± 0.5nH	800	10	13.0	26.5	35.4	44.2	51.9	63.9	9100 ± 15%	0.10	1,000
LL1608-FSL2N7S	2.7	S	2.6	± 0.5nH	800	11	13.1	28.4	37.6	48.2	54.7	72.0	7300 ± 15%	0.11	1,000
LL1608-FSL3N3S	3.3	S	3.2	± 0.5nH	800	12	13.8	27.8	36.0	46.4	52.9	68.0	5800 ± 15%	0.13	1,000
LL1608-FSL3N9S	3.9	S	3.8	± 0.5nH	800	12	14.4	30.4	39.6	50.2	56.8	70.0	6500 ± 15%	0.15	1,000
LL1608-FSL4N7S	4.7	S	4.6	± 0.5nH	800	12	14.9	29.7	39.0	49.2	55.6	70.0	5600 ± 15%	0.17	1,000
LL1608-FSL5N6S	5.6	S	5.5	± 0.5nH	800	12	15.7	28.8	38.2	47.7	53.3	61.9	4800 ± 15%	0.20	600
LL1608-FSL6N8J	6.8	J	6.7	± 10%	800	12	15.8	29.4	39.0	49.3	55.8	67.5	4700 ± 15%	0.22	600
LL1608-FSL8N2J	8.2	J	8.1	± 10%	800	12	16.8	30.4	40.3	51.1	56.8	63.8	4200 ± 15%	0.26	600
LL1608-FSL10NJ	10	J	9.9	± 10%	800	13	17.3	29.3	38.6	48.1	53.8	56.7	4000 ± 15%	0.30	600
LL1608-FSL12NJ	12	J	12	± 10%	800	13	18.2	31.8	42.2	53.0	58.4	53.3	3400 ± 15%	0.35	600
LL1608-FSL15NJ	15	J	15	± 10%	800	13	18.0	31.8	41.4	51.2	55.8	49.7	3200 ± 15%	0.40	600
LL1608-FSL18NJ	18	J	18	± 10%	800	13	18.7	33.5	43.8	53.7	58.5	46.1	2900 ± 15%	0.47	600
LL1608-FSL22NJ	22	J	23	± 10%	800	13	19.9	32.2	42.0	50.4	52.7	34.5	2500 ± 15%	0.54	600
LL1608-FSL27NJ	27	J	29	± 10%	800	13	19.6	27.3	43.3	50.4	51.8	24.3	2300 ± 15%	0.62	600
LL1608-FSL33NJ	33	J	37	± 10%	800	15	19.6	33.2	42.2	48.0	47.9	15.9	2000 ± 15%	0.70	600
LL1608-FSL39NJ	39	J	45	± 10%	800	15	20.6	32.2	41.3	46.1	44.8	11.4	1900 ± 15%	0.80	600
LL1608-FSL47NJ	47	J	58	± 10%	800	15	21.0	32.6	40.4	40.8	37.1	9.7	1600 ± 15%	0.90	500
LL1608-FSL56NJ	56	J	60	± 10%	500	15	21.5	31.7	38.6	38.6	33.5	—	1500 ± 15%	1.00	500
LL1608-FSL68NJ	68	J	77	± 10%	500	15	21.7	29.5	34.5	29.1	19.1	—	1300 ± 15%	1.20	400
LL1608-FSL82NJ	82	J	104	± 10%	500	15	21.1	34.7	40.2	32.5	19.5	—	1000 ± 15%	1.40	300
LL1608-FSLR10J	100	J	136	± 10%	500	15	20.5	35.5	39.1	20.4	—	—	900 ± 15%	1.60	300
LL1608-FSLR12J	120**	J	133	± 10%	300	12**	23.1	31.3	30.8	—	—	—	800 ± 15%	2.00	200
LL1608-FSLR15J	150**	J	174	± 10%	300	11**	20.0	27.5	21.6	—	—	—	740 ± 15%	2.40	200
LL1608-FSLR18J	180**	J	222	± 10%	300	11**	18.8	27.1	12.1	—	—	—	650 ± 15%	2.70	150
LL1608-FSLR22J	220**	J	293	± 10%	300	11**	22.3	25.1	—	—	—	—	580 ± 15%	3.00	150
LL1608-FSLR27J	270***	J	319	± 10%	200	8***	21.9	21.1	—	—	—	—	470 ± 15%	3.50	150

* Add tolerance to part number: S=±0.3nH, J = ±5%
**50MHz, ***25MHz
Testing Conditions: (1) L,Q: Agilent 4291A/B (Test fixture 16192A) (2) SRF: Agilent 8719D, 8720D (3) RDC: Agilent 4338A/B

ELECTRICAL CHARACTERISTICS

Q vs. Frequency



Inductance vs. Frequency