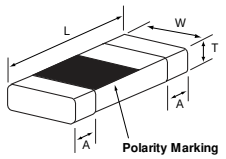
TYPE
LLP20[redacted]
PTL2012F

Thick Film Chip Inductors

TOKO Meeting Your Needs

The LLP2012-F is a photolithographically etched single layer ceramic chip inductor in a standard 0805 package. TOKO's proprietary design provides high SRF, excellent Q, and superior temperature stability. This inductor family is specifically designed for critical tolerance inductor needs. More economical than thin film or screened wirewounds, the LLP2012-F is an ideal solution for tight tolerance requirements, such as VCO circuits and GaAs matching.



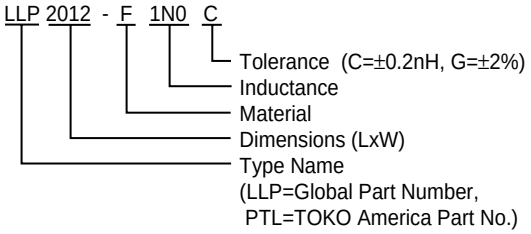
Unit: mm

Type	L (mm)	W (mm)	T (mm)	A (mm)
LLP2012F	2.0±0.2	1.25±0.2	0.5±0.15	0.3±0.2

Features

- ±0.2nH and ±2% inductance tolerances
- Inductance range: 1.0-82nH
- Miniature size: 0805 footprint (2.0mm x 1.2mm)
- Inductance and Q specified at 100MHz and 800MHz
- Self-resonant frequency specified at ±10%
- Q: 23 ~ 68 typical (at 1800MHz)
- Temperature coefficient: +100ppm/°C
- Temperature range: –55°C to +125°C
- S-parameter data available upon request
- Packaged on tape and reel in 6,000 piece quantity
- Reflow solderable

Part Numbering



STANDARD PARTS SELECTION GUIDE

TYPE LLP2012-F

Global Part Number	TOKO America Part Number	Inductance & Tolerance				Q min.		Q (Typ.)						SRF (MHz)	RDC (Ω) max.	IDC (mA) max.
		at 100MHz		at 800 MHz												
		Lo (nH)	L Tol.*	Lo (nH)	L Tol.*	100 MHz	800 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz	1800 MHz			
LLP2012-F1N0_*	PTL2012-F1N0_*	1.0	C	1.0	± 0.3nH	7	22	10.4	20.0	25.4	31.3	32.1	52.5	10000 ± 10%	0.10	1300
LLP2012-F1N2_*	PTL2012-F1N2_*	1.2	C	1.2	± 0.3nH	7	22	9.4	19.1	24.9	31.7	32.7	62.6	9000 ± 10%	0.10	1100
LLP2012-F1N5_*	PTL2012-F1N5_*	1.5	C	1.5	± 0.3nH	6	22	9.2	17.4	22.4	30.6	32.9	43.2	8500 ± 10%	0.12	800
LLP2012-F1N8_*	PTL2012-F1N8_*	1.8	C	1.7	± 0.3nH	6	22	9.5	20.0	26.5	34.9	35.2	60.7	8000 ± 10%	0.15	800
LLP2012-F2N2_*	PTL2012-F2N2_*	2.2	C	2.1	± 0.3nH	7	23	10.0	21.1	28.5	37.3	38.2	63.9	7000 ± 10%	0.15	750
LLP2012-F2N7_*	PTL2012-F2N7_*	2.7	C	2.6	± 0.3nH	8	25	10.5	21.9	29.5	38.1	38.8	63.8	6000 ± 10%	0.20	750
LLP2012-F3N3C	PTL2012-F3N3C	3.3	C	3.2	± 0.3nH	8	25	10.6	22.6	31.2	40.5	41.1	67.5	5300 ± 10%	0.20	650
LLP2012-F3N9C	PTL2012-F3N9C	3.9	C	3.8	± 0.3nH	8	25	10.6	22.3	30.6	39.5	39.2	62.5	4800 ± 10%	0.30	600
LLP2012-F4N7C	PTL2012-F4N7C	4.7	C	4.6	± 0.3nH	8	28	10.4	21.8	30.1	39.2	39.4	60.8	4350 ± 10%	0.35	550
LLP2012-F5N6C	PTL2012-F5N6C	5.6	C	5.5	± 0.3nH	8	28	10.1	21.8	30.3	39.5	38.8	61.5	4000 ± 10%	0.50	500
LLP2012-F6N8C	PTL2012-F6N8C	6.8	C	6.7	± 0.3nH	8	30	10.5	22.6	31.6	41.3	39.4	57.9	3600 ± 10%	0.50	450
LLP2012-F8N2C	PTL2012-F8N2C	8.2	C	8.1	± 0.3nH	8	30	11.0	23.8	33.1	43.0	40.1	55.1	3250 ± 10%	0.60	400
LLP2012-F10NG	PTL2012-F10NG	10	G	10.0	± 4%	9	32	10.2	21.9	30.8	39.8	37.1	51.0	2850 ± 10%	0.70	350
LLP2012-F12NG	PTL2012-F12NG	12	G	12.2	± 4%	9	32	10.9	23.2	32.1	40.6	37.0	46.7	2500 ± 10%	0.80	350
LLP2012-F15NG	PTL2012-F15NG	15	G	15.5	± 4%	9	32	10.8	22.8	31.6	39.3	34.5	39.7	2250 ± 10%	1.00	300
LLP2012-F18NG	PTL2012-F18NG	18	G	19.1	± 4%	9	30	12.0	24.7	33.6	40.5	34.1	31.6	2000 ± 10%	1.20	300
LLP2012-F22NG	PTL2012-F22NG	22	G	23.8	± 4%	9	30	12.7	25.2	33.6	38.8	31.6	23.4	1800 ± 10%	1.50	250
LLP2012-F27NG	PTL2012-F27NG	27	G	30.2	± 5%	9	30	10.9	23.2	32.1	36.9	28.8	–	1650 ± 10%	1.80	200
LLP2012-F33NG	PTL2012-F33NG	33	G	39.0	± 5%	8	30	11.0	22.9	30.8	33.7	24.1	–	1450 ± 10%	2.50	200
LLP2012-F39NG	PTL2012-F39NG	39	G	49.4	± 5%	8	28	11.2	23.5	31.5	32.9	21.7	–	1350 ± 10%	3.00	180
LLP2012-F47NG	PTL2012-F47NG	47	G	62.8	± 5%	7	24	11.1	23.1	30.6	29.7	17.5	–	1180 ± 10%	4.00	130
LLP2012-F56NG	PTL2012-F56NG	56	G	83.4	± 5%	7	20	12.1	24.7	31.2	26.3	–	–	1070 ± 10%	4.50	120
LLP2012-F68NG	PTL2012-F68NG	68	G	**80.2	** ± 5%	7	22	10.6	23.2	29.0	22.6	–	–	950 ± 10%	5.00	100
LLP2012-F82NG	PTL2012-F82NG	82	G	**99.8	** ± 5%	8	20	9.7	22.0	27.3	19.0	–	–	900 ± 10%	6.00	90

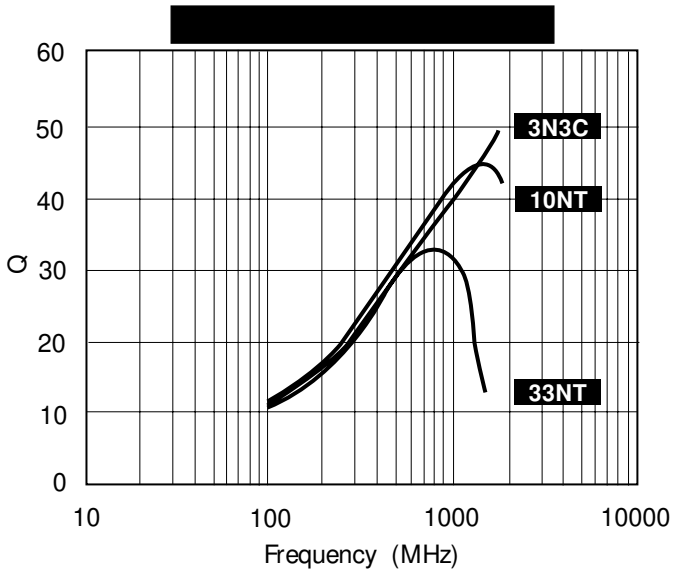
* * (at 500MHz)

* Add tolerance to part number: C = ±0.2nH, G = ±2%

Testing Conditions: (1) L,Q: Agilent 4291A (Test fixture Agilent 16193A) (2) SRF: Agilent 8719D (3) RDC: Agilent 4338B

ELECTRICAL CHARACTERISTICS

Q vs. Frequency



Inductance vs. Frequency