

MULTILAYER CERAMIC CHIP INDUCTOR

DESCRIPTION

The LLV0603-FB Series is a multilayer ceramic chip inductor in an EIA standard 0201 footprint with very high self-resonant frequency characteristics and no requirements for magnetic polarity orientation.

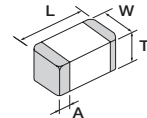


FEATURES

- Inductance range: 1.0-22nH
- Miniature size: 0201 footprint (0.6mm x 0.3mm)
- Inductance specified at 100MHz and 800MHz
- Self-resonant frequency specified at $\pm 20\%$
- Q: 16 ~ 22 typical (at 1800MHz)
- Temperature coefficient of inductance: +250ppm/ $^{\circ}\text{C}$
- Temperature range: -55°C to $+125^{\circ}\text{C}$
- S-parameter data available upon request
- Packaged on tape and reel in 15,000 piece quantity
- Reflow solderable
- Lead-free terminations

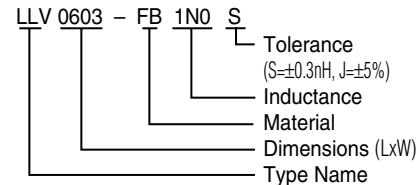
DIMENSIONS

Length L (mm)	Width W (mm)	Thickness T (mm)	Electrode width A (mm)
0.6 \pm 0.03	0.3 \pm 0.03	0.3 \pm 0.03	0.1-0.2



Unit: mm

PART NUMBERING



STANDARD PARTS SELECTION GUIDE

TYPE LLV0603-FB

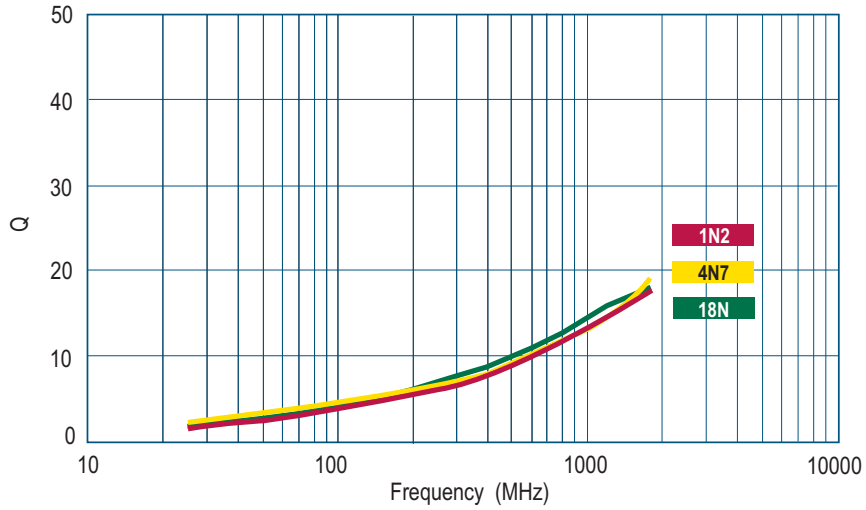
TOKO Part Number	Inductance & Tolerance				Q min.	Q (Typ.)						SRF (MHz)	RDC (Ω) max.	IDC (mA) max.	
	at 100MHz		at 800MHz			100 MHz	100 MHz	300 MHz	500 MHz	800 MHz	1000 MHz				1800 MHz
	Lo (nH)	L Tol.*	Lo (nH)	L Tol.*											
LLV0603-FB1N0S	1.0	S	1.1	$\pm 0.5\text{nH}$	3	3.9	6.8	8.8	11.4	12.7	16.6	20000 min	0.15	170	
LLV0603-FB1N2S	1.2	S	1.3	$\pm 0.5\text{nH}$	3	4.0	6.9	9.2	11.9	13.3	17.8	20000 min	0.15	170	
LLV0603-FB1N5S	1.5	S	1.6	$\pm 0.5\text{nH}$	3	4.1	6.9	9.2	11.8	13.3	17.8	20000 min	0.15	170	
LLV0603-FB1N8S	1.8	S	1.8	$\pm 0.5\text{nH}$	3	4.1	7.0	9.3	11.0	13.4	18.1	20000 min	0.20	170	
LLV0603-FB2N2S	2.2	S	2.2	$\pm 0.5\text{nH}$	3	4.2	7.1	9.2	10.8	13.2	18.5	20000 min	0.20	150	
LLV0603-FB2N7S	2.7	S	2.3	$\pm 0.5\text{nH}$	3	3.9	6.4	8.1	10.3	11.5	16.2	20000 $\pm 20\%$	0.25	150	
LLV0603-FB3N3S	3.3	S	2.9	$\pm 0.5\text{nH}$	3	4.3	7.1	9.0	11.5	12.9	18.2	18000 $\pm 20\%$	0.30	150	
LLV0603-FB3N9S	3.9	S	3.3	$\pm 0.5\text{nH}$	3	5.5	7.6	9.7	12.1	13.4	19.3	11000 $\pm 20\%$	0.35	150	
LLV0603-FB4N7S	4.7	S	4.0	$\pm 0.5\text{nH}$	3	5.6	7.5	9.5	12.0	13.4	19.2	9600 $\pm 20\%$	0.40	150	
LLV0603-FB5N6S	5.6	S	4.9	$\pm 0.5\text{nH}$	3.5	4.7	7.7	9.9	12.6	14.1	20.3	9100 $\pm 20\%$	0.45	150	
LLV0603-FB6N8J	6.8	J	6.0	$\pm 7\%$	3.5	4.7	7.6	9.8	12.5	14.0	20.1	8400 $\pm 20\%$	0.50	150	
LLV0603-FB8N2J	8.2	J	7.0	$\pm 7\%$	3.5	4.4	6.8	8.5	12.7	11.8	16.4	7600 $\pm 20\%$	0.60	150	
LLV0603-FB10NJ	10	J	9.0	$\pm 7\%$	3.5	5.0	8.1	10.4	13.0	14.6	20.6	6700 $\pm 20\%$	0.70	150	
LLV0603-FB12NJ	12	J	11	$\pm 7\%$	4	5.0	8.4	10.8	12.7	15.4	21.5	6400 $\pm 20\%$	0.85	100	
LLV0603-FB15NJ	15	J	13	$\pm 7\%$	4	4.8	8.1	10.3	13.2	14.8	19.7	5800 $\pm 20\%$	1.00	100	
LLV0603-FB18NJ	18	J	16	$\pm 7\%$	4	4.8	8.0	10.2	13.0	14.6	19.1	5300 $\pm 20\%$	1.30	100	
LLV0603-FB22NJ	22	J	19	$\pm 7\%$	3.5	4.7	8.0	10.4	13.2	14.8	20.6	5000 $\pm 20\%$	2.00	100	

* Add tolerance to part number: S= $\pm 0.3\text{nH}$, J = $\pm 5\%$

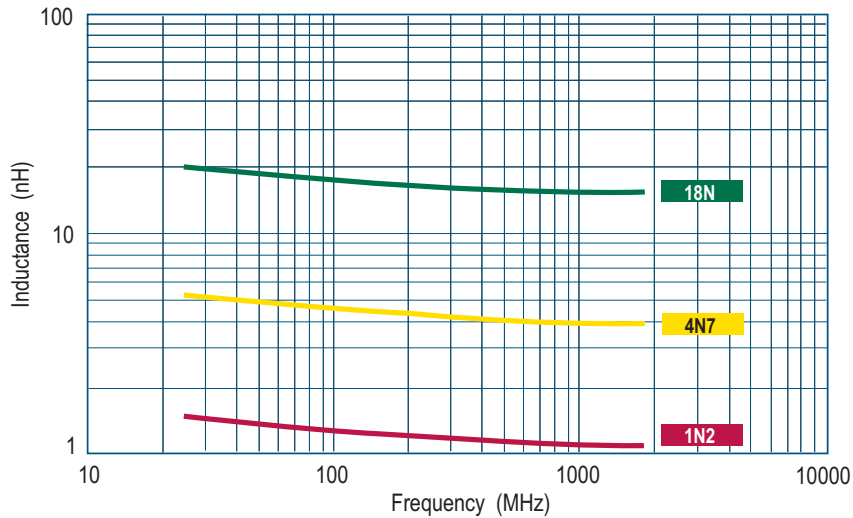
Testing Conditions: (1) L,Q: Agilent 4291A/B (Test fixture Agilent 16196C) (2) SRF: Agilent 8719D, 8720D (3) RDC: Agilent 4338A-/B

ELECTRICAL CHARACTERISTICS

Q vs. Frequency



Inductance vs. Frequency



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