



# Frontier Electronics Corp.

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## Multi-layers Chip Inductors--TF2012 (0805) series--Ceramic

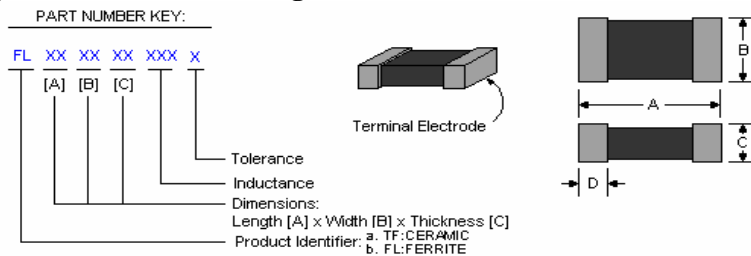
### A. Electrical specifications:

Part No.	L (nH) @100MHz	Tolerance	Q min. @100MHz	Q Typical		SRF min. (MHz)	DCR (Max) Ω	I rms. (mA)
				@100MHz	@800MHz			
TF201209-1N5S	1.5	S	8	13	40	6000	0.10	300
TF201209-1N8S	1.8	S	8	13	45	6000	0.10	300
TF201209-2N2S	2.2	S	8	13	48	6000	0.10	300
TF201209-2N7S	2.7	S	8	12	36	6000	0.10	300
TF201209-3N3	3.3	S, K	8	13	56	6000	0.13	300
TF201209-3N9	3.9	S, K	8	15	54	5400	0.15	300
TF201209-4N7	4.7	S, K	8	15	50	4500	0.20	300
TF201209-5N6	5.6	S, K	8	15	53	4000	0.23	300
TF201209-6N8	6.8	J, K	8	15	51	3650	0.25	300
TF201209-8N2	8.2	J, K	8	15	53	3000	0.28	300
TF201209-10N	10.0	J, K	8	16	45	2500	0.30	300
TF201209-12N	12.0	J, K	8	16	48	2450	0.35	300
TF201209-15N	15.0	J, K	8	17	48	2000	0.40	300
TF201209-18N	18.0	J, K	8	17	43	1750	0.45	300
TF201209-22N	22.0	J, K	8	17	47	1700	0.50	300
TF201209-27N	27.0	J, K	8	18	38	1550	0.55	300
TF201209-33N	33.0	J, K	8	18	35	1350	0.60	300
TF201209-39N	39.0	J, K	8	18	40	1300	0.65	300
TF201209-47N	47.0	J, K	8	18	33	1200	0.70	300
TF201209-56N	56.0	J, K	8	19	31	1150	0.75	300
TF201209-68N	68.0	J, K	8	19	28	1000	0.85	300
TF201209-82N	82.0	J, K	8	20	9	850	0.90	300
TF201209-R10	100	J, K	8	18	-	730	1.0	300
TF201212-R12	120	J, K	8	19	-	650	1.3	250
TF201212-R15	150	J, K	8	20	-	550	1.5	250
TF201212-R18	180	J, K	8	20	-	500	1.8	250
TF201212-R22	220	J, K	8	20	-	450	2.0	200
TF201212-R27	270	J, K	8	20	-	400	2.5	200
TF201212-R33	330	J, K	8	20	-	380	3.0	150
TF201212-R39	390	J, K	8	20	-	330	3.5	150
TF201212-R47	470	J, K	8	19	-	300	4.0	100

### B. Dimensions: [Unit: mm /(inch)]

P/N & Package Size	A	B	C	D
TF201209 (0805)	2.0 ± 0.2 (0.079 ± 0.008)	1.2 ± 0.2 (0.047 ± 0.008)	0.9 ± 0.2 (0.035 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
TF201212 (0805)	2.0 ± 0.2 (0.079 ± 0.008)	1.2 ± 0.2 (0.047 ± 0.008)	1.2 ± 0.2 (0.047 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)

### C. Part Number Key & Mechanical drawing:



### D. Features:

1. Tolerance: K: ± 10%, J: ± 5%, D: ± 0.5nH, S: ± 0.3nH.
2. The product's material: **Ceramic**.
3. No cross coupling between inductors due to magnetic shield. Ideal for high-density installation.
4. Superior Q characteristics guaranteed over the wide frequency and allow high frequency application.
5. The completely monolithic structure gives high reliability and allows high SRF.
6. Operating temperature range: -25°C to +85°C, both flow and IR re-flow application is possible.
7. Inductance Range:  
\*TF2012 (0805) Series: Multi-layer Ceramic Chip Inductor, from 1.5 nH (300 mA) to 470.0 nH (100 mA)
8. **RoHS** compliant.