

2. High Frequency Use High-Q (Non Magnetic Core) QF, QE



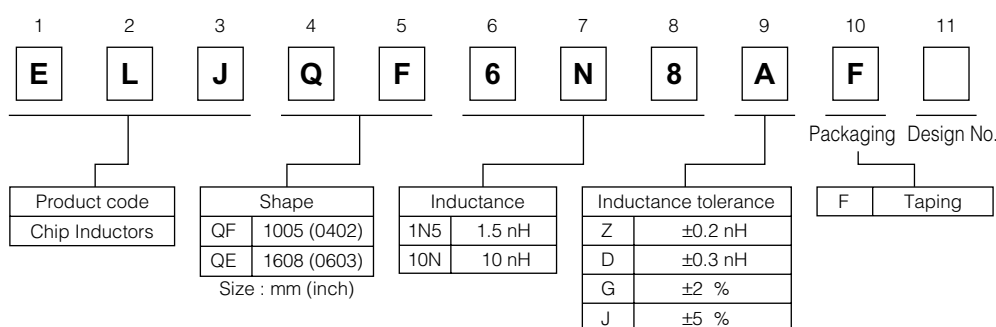
■ Features

- Capable of being Re-flow or flow soldered.
- Unique Ceramic Core/Laser-cut Technology.
- Non polarity product.
- High self resonance frequency.
- Good for mounting.
- RoHS compliant

■ Recommended Applications

- RF circuitry for cellular phones and wireless communication equipment.

■ Explanation of Part Numbers



■ Storage Conditions

- Package : Normal temperature (−5 to 35 °C), normal humidity (85 %RH max.), shall not be exposed to direct sunlight and harmful gases and care should be taken so as not to cause dew.
- Operating Temperature : −20 to +85 °C

■ Storage Period

- Solderability may be reduced due to the conditions of high temperature and high humidity which causes the oxidation of tin-plated terminals. Even if storage conditions are within specified limits, solderability may be reduced with the passage of time. Therefore, please control the storage conditions and try to use the product within 6 months of receipt.

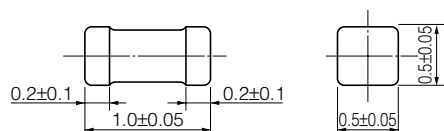
■ Packaging Methods Please see Page 127

■ Soldering Conditions Please see Page 128

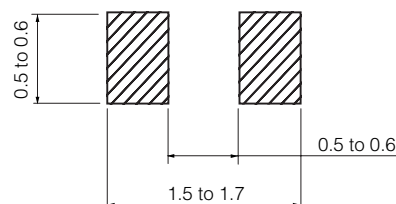
■ Safety Precautions Please see Page 129

■ QF Type 1005 (0402)

● Dimensions in mm (not to scale)



● Recommended Land Pattern in mm (not to scale)



■ Standard Packing Quantity

● 10000 pcs./Reel

■ Standard Parts (E12 series)

Part No.	Inductance			Q		SRF *1 (MHz) min.	R _{DC} *2 (Ω) max.	DC Current (mA) max.	
	(nH)	Tolerance (%)	Test Freq. (MHz)	100 MHz min.	800 MHz typ.				
ELJQF1N0□F	1.0	D : ±0.3 nH	Z : ±0.2 nH	100	10	41	6000	0.05	400
ELJQF1N2□F	1.2					41	6000	0.06	400
ELJQF1N5□F	1.5					40	6000	0.07	400
ELJQF1N8□F	1.8					40	6000	0.08	400
ELJQF2N2□F	2.2					40	6000	0.09	400
ELJQF2N7□F	2.7					40	5500	0.10	400
ELJQF3N3□F	3.3					39	5500	0.12	400
ELJQF3N9□F	3.9					39	5200	0.15	360
ELJQF4N7□F	4.7					39	4800	0.17	360
ELJQF5N6□F	5.6					39	4600	0.19	340
ELJQF6N8□F	6.8	J : ±5 %	G : ±2 %			39	4000	0.30	320
ELJQF8N2□F	8.2					39	3500	0.35	320
ELJQF10N□F	10					39	2800	0.41	320
ELJQF12N□F	12					38	2800	0.45	320
ELJQF15N□F	15					36	2500	0.60	240
ELJQF18N□F	18					36	2200	0.70	240
ELJQF22N□F	22					36	2000	0.80	200
ELJQF27N□F	27					36	1800	1.20	200
ELJQF33N□F	33					35	1800	1.40	170
ELJQF39N□F	39					35	1800	1.70	150

□ : Symbol of Tolerance *1 : Self Resonant Frequency *2 : DC Resistance

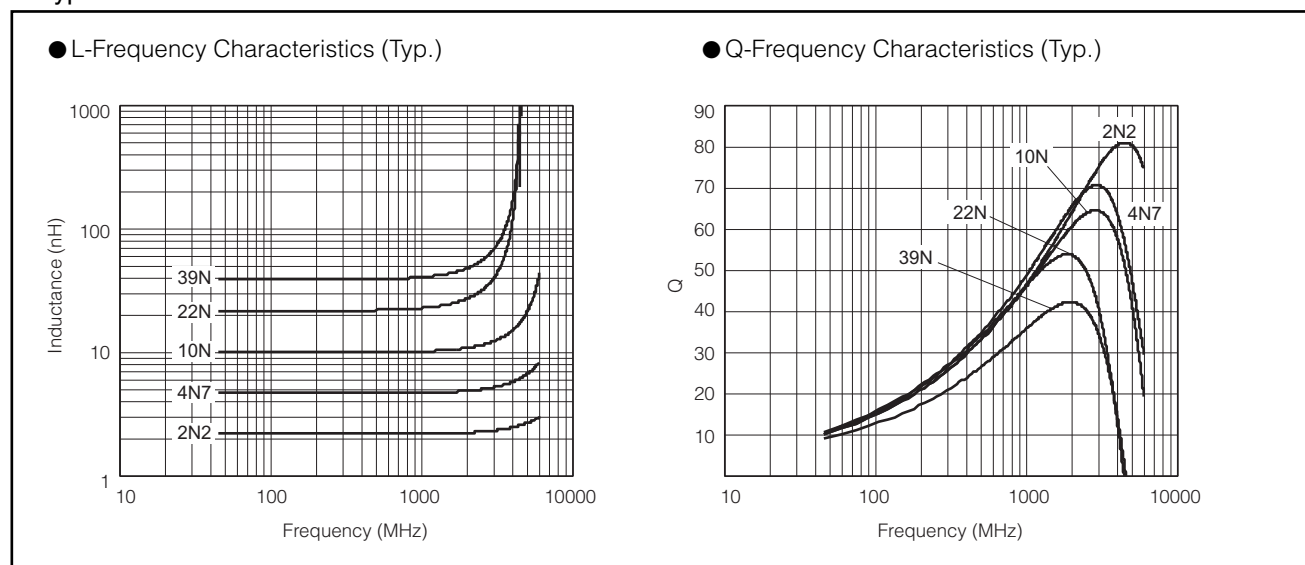
■ Standard Parts (E24 series)

Part No.	Inductance			Q		SRF *1 (MHz) min.	R _{DC} *2 (Ω) max.	DC Current (mA) max.
	(nH)	Tolerance (%)	Test Freq. (MHz)	100 MHz min.	800 MHz typ.			
ELJQF1N1□F	1.1	D : ±0.3 nH	Z : ±0.2 nH	100	10	41	6000	400
ELJQF1N3□F	1.3					40	6000	400
ELJQF1N6□F	1.6					40	6000	400
ELJQF2N0□F	2.0					40	6000	400
ELJQF2N4□F	2.4					40	5500	400
ELJQF3N0□F	3.0					39	5500	400
ELJQF3N6□F	3.6					39	5300	380
ELJQF4N3□F	4.3					39	5000	360
ELJQF5N1□F	5.1					39	4700	350
ELJQF6N2□F	6.2					39	4300	330
ELJQF7N5□F	7.5	J : ±5 %	G : ±2 %			39	3700	320
ELJQF9N1□F	9.1					39	3100	320
ELJQF11N□F	11					38	2800	320
ELJQF13N□F	13					36	2600	280
ELJQF16N□F	16					36	2300	240
ELJQF20N□F	20					36	2100	220
ELJQF24N□F	24					36	1900	200
ELJQF30N□F	30					35	1800	190
ELJQF36N□F	36					35	1800	160

□ : Symbol of Tolerance *1 : Self Resonant Frequency *2 : DC Resistance

■ ELJQF Type

■ Typical Characteristics



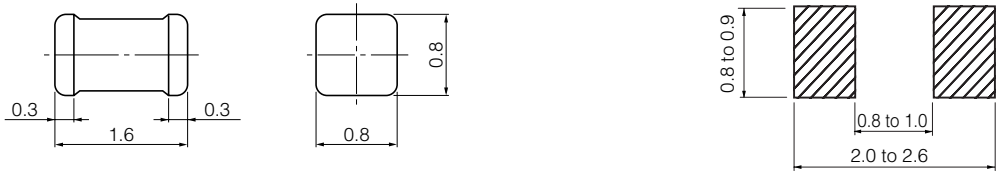
■ Reference Date

Part No.	Inductance (nH)(Typ.)					Q(Typ.)				
	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz
ELJQF1N0□F	1.00	1.00	1.01	1.01	1.02	42.8	46.1	64.1	67.7	73.6
ELJQF1N2□F	1.20	1.21	1.22	1.22	1.23	44.4	47.1	65.8	69.0	75.1
ELJQF1N5□F	1.51	1.51	1.53	1.53	1.55	43.7	46.4	64.5	67.6	73.3
ELJQF1N8□F	1.78	1.78	1.81	1.82	1.84	40.0	42.4	58.8	61.5	66.6
ELJQF2N2□F	2.19	2.19	2.24	2.25	2.28	41.9	44.5	61.4	64.2	69.3
ELJQF2N7□F	2.73	2.73	2.79	2.81	2.85	46.3	49.1	67.7	70.7	76.2
ELJQF3N3□F	3.32	3.33	3.40	3.43	3.48	47.2	50.0	68.8	71.8	77.1
ELJQF3N9□F	3.98	3.99	4.11	4.15	4.24	43.0	45.6	62.0	64.4	68.4
ELJQF4N7□F	4.70	4.71	4.86	4.91	5.02	44.1	46.8	63.2	65.6	69.1
ELJQF5N6□F	5.59	5.60	5.80	5.87	6.02	44.2	46.9	63.6	66.1	70.3
ELJQF6N8□F	6.82	6.84	7.13	7.22	7.46	42.6	45.1	60.4	62.5	65.4
ELJQF8N2□F	8.33	8.35	8.76	8.89	9.22	41.3	43.7	58.2	60.0	62.3
ELJQF10N□F	10.14	10.18	10.76	10.94	11.42	41.8	44.2	58.8	60.8	63.5
ELJQF12N□F	12.0	12.1	12.9	13.2	13.9	44.1	46.7	59.9	61.0	60.9
ELJQF15N□F	15.2	15.3	16.7	17.2	18.4	42.3	44.6	56.2	56.8	55.7
ELJQF18N□F	18.3	18.4	20.2	20.8	22.5	43.4	45.7	55.8	55.5	52.1
ELJQF22N□F	22.5	22.8	26.2	27.4	30.9	42.4	44.6	53.8	53.7	50.8
ELJQF27N□F	27.8	28.1	33.3	35.3	41.2	39.6	41.6	48.8	48.1	44.1
ELJQF33N□F	33.7	34.0	38.4	40.0	44.3	35.6	37.4	45.4	45.3	42.9
ELJQF39N□F	40.1	40.5	46.2	48.2	53.9	32.8	34.5	42.2	42.3	40.9

□ : Symbol of Tolerance

- QE Type 1608 (0603)

● Dimensions in mm (not to scale)
- Recommended Land Pattern in mm (not to scale)



- Standard Packing Quantity

● 3000 pcs./Reel

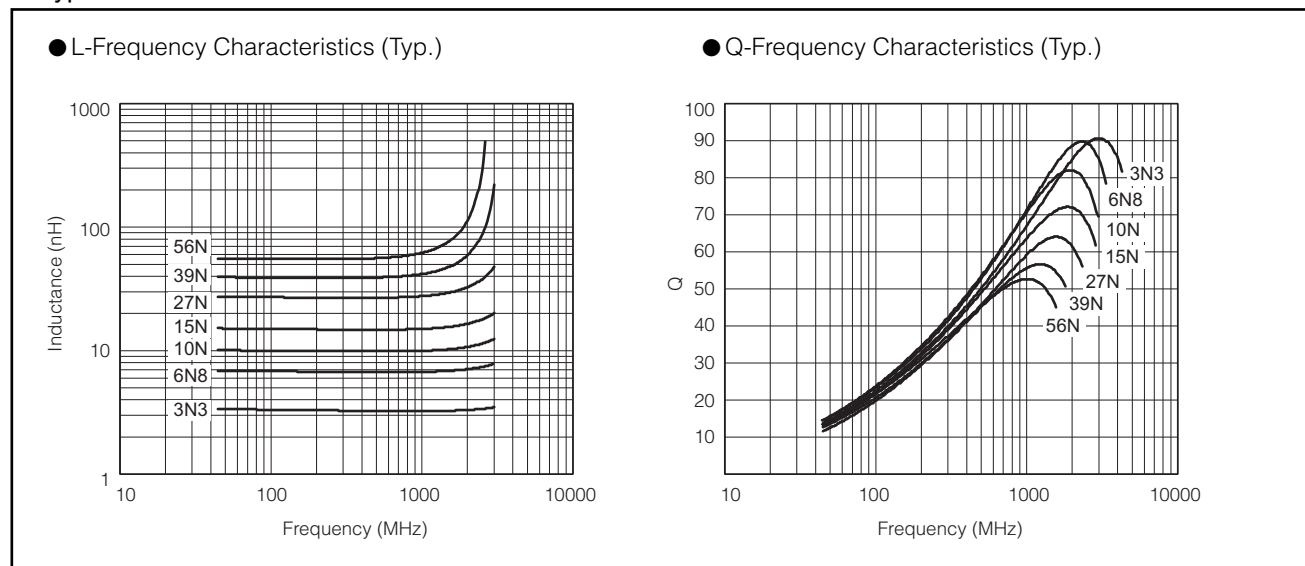
■ Standard Parts (E12 series)

Part No.	Inductance			Q		SRF *1 (MHz) min.	R _{DC} *2 (Ω) max.	DC Current (mA) max.
	(nH)	Tolerance (%)	Test Freq. (MHz)	100 MHz min.	800 MHz typ.			
ELJQE2N2□FA	2.2	D : ±0.3 nH	Z : ±0.2 nH	100	15	88.6	6000	970
ELJQE2N7□FA	2.7					65.4	6000	880
ELJQE3N3□FA	3.3					61.3	6000	800
ELJQE3N9□FA	3.9					68.4	6000	750
ELJQE4N7□FA	4.7					65.2	6000	660
ELJQE5N6□FA	5.6	J : ±5 %	G : ±2 %	100	15	57.4	6000	600
ELJQE6N8□FA	6.8					65.0	6000	540
ELJQE8N2□FA	8.2					65.5	5700	490
ELJQE10N□FA	10					63.8	5300	450
ELJQE12N□FA	12					61.9	4900	400
ELJQE15N□FA	15					59.0	4400	350
ELJQE18N□FA	18					58.6	4000	320
ELJQE22N□FA	22					59.1	3700	290
ELJQE27N□FA	27					55.0	3400	260
ELJQE33N□FA	33					54.2	3000	230
ELJQE39N□FA	39					52.9	2800	210
ELJQE47N□FA	47					54.4	2500	190
ELJQE56N□FA	56					51.5	2500	180

□ : Symbol of Tolerance *1 : Self Resonant Frequency *2 : DC Resistance

■ ELJQE Type

■ Typical Characteristics



■ Reference Date

Part No.	Inductance (nH)(Typ.)					Q(Typ.)				
	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz	800MHz	900MHz	1.8GHz	2.0GHz	2.4GHz
ELJQE2N2□FA	2.18	2.18	2.23	2.25	2.30	88.6	92.5	117.0	119.5	122.5
ELJQE2N7□FA	2.62	2.62	2.69	2.71	2.78	65.4	68.4	87.2	89.3	92.4
ELJQE3N3□FA	3.24	3.24	3.29	3.30	3.36	61.3	64.2	82.6	84.9	88.7
ELJQE3N9□FA	3.83	3.83	3.91	3.93	4.01	68.4	71.9	94.8	97.6	102.1
ELJQE4N7□FA	4.61	4.61	4.74	4.78	4.91	65.2	68.4	88.3	90.4	93.0
ELJQE5N6□FA	5.48	5.48	5.62	5.67	5.82	57.4	60.1	77.2	79.2	82.0
ELJQE6N8□FA	6.70	6.71	6.96	7.05	7.30	65.0	68.2	87.0	88.6	89.7
ELJQE8N2□FA	8.12	8.14	8.57	8.71	9.12	65.5	68.4	84.0	84.7	83.5
ELJQE10N□FA	9.89	9.92	10.5	10.7	11.3	63.8	66.7	81.5	82.1	80.5
ELJQE12N□FA	12.0	12.0	12.9	13.1	14.0	61.9	64.6	77.8	78.0	75.4
ELJQE15N□FA	14.9	14.9	16.1	16.4	17.6	59.0	61.4	72.1	72.0	69.0
ELJQE18N□FA	18.0	18.1	20.1	20.8	22.9	58.6	61.0	70.1	69.2	64.0
ELJQE22N□FA	22.0	22.1	24.9	25.9	29.0	59.1	61.3	67.8	66.1	59.0
ELJQE27N□FA	27.1	27.3	31.2	32.5	36.7	55.0	57.2	63.3	61.6	54.3
ELJQE33N□FA	33.9	34.4	43.7	47.4	61.4	54.2	55.9	54.7	51.0	39.1
ELJQE39N□FA	40.3	40.9	53.6	58.9	79.9	52.9	54.4	50.6	46.3	33.2
ELJQE47N□FA	49.6	50.5	72.7	83.1	134.8	54.4	55.4	44.2	38.1	21.6
ELJQE56N□FA	58.8	60.1	93.6	111.2	223.8	51.5	52.3	37.7	30.9	13.6

□ : Symbol of Tolerance