






# CERAMIC RF CHIP INDUCTORS

## PE-0402CL SERIES



-  Monolithic inorganic material construction Low
-  DC resistance, high Q Values at high frequency
-  High Self Resonant Frequency
-  Industry Standard 0402 (1005) Surface Mount Land Pattern
-  Operational temperature -55°C to +125°C

Electrical Specifications @ 25°C

Part Number	Inductance (nH)	Standard Tolerance	Q (Min.)	Test Frequency (MHz)	SRF (MHz MIN)	R <sub>dc</sub> (Ω MAX)	I <sub>dc</sub> (mA MAX)
PE-0402CL1N0STT	1.0	±0.3nH (S)	8	100	10000	0.1	400
PE-0402CL1N2STT	1.2	±0.3nH (S)	8	100	10000	0.1	400
PE-0402CL1N5STT	1.5	±0.3nH (S)	8	100	6000	0.1	300
PE-0402CL1N8STT	1.8	±0.3nH (S)	8	100	6000	0.1	300
PE-0402CL2N0STT	2.0	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL2N2STT	2.2	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL2N7STT	2.7	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL3N3STT	3.3	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL3N6STT	3.6	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL3N9STT	3.9	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL4N7STT	4.7	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL5N6STT	5.6	±0.3nH (S)	8	100	4000	0.3	300
PE-0402CL6N2STT	6.2	±0.3nH (S)	8	100	3900	0.3	300
PE-0402CL6N8JTT	6.8	±5% (J)	8	100	3900	0.3	300
PE-0402CL7N5JTT	7.5	±5% (J)	8	100	3700	0.4	300
PE-0402CL8N2JTT	8.2	±5% (J)	8	100	3600	0.4	300
PE-0402CL100JTT	10	±5% (J)	8	100	3200	0.4	300
PE-0402CL120JTT	12	±5% (J)	8	100	2700	0.5	300
PE-0402CL150JTT	15	±5% (J)	8	100	2300	0.5	300
PE-0402CL180JTT	18	±5% (J)	8	100	2100	0.5	300
PE-0402CL220JTT	22	±5% (J)	8	100	1900	0.6	300
PE-0402CL270JTT	27	±5% (J)	8	100	1600	0.7	300
PE-0402CL330JTT	33	±5% (J)	8	100	1300	0.8	200

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### Electrical Specifications @ 25°C

Part Number	Inductance (nH)	Standard Tolerance	Q (Min.)	Test Frequency (MHz)	SRF (MHz MIN)	RDC ( $\Omega$ MAX)	IDC (mA MAX)
PE-0402CL470JTT	47	±5% (J)	8	100	1000	1.1	200
PE-0402CL560JTT	56	±5% (J)	8	100	750	1.2	200
PE-0402CL680JTT	68	±5% (J)	8	100	750	1.4	180
PE-0402CL820JTT	82	±5% (J)	8	100	750	2.4	150
PE-0402CL101JTT	100	±5% (J)	8	100	700	2.6	150
PE-0402CL121JTT	120	±5% (J)	8	100	600	2.8	150

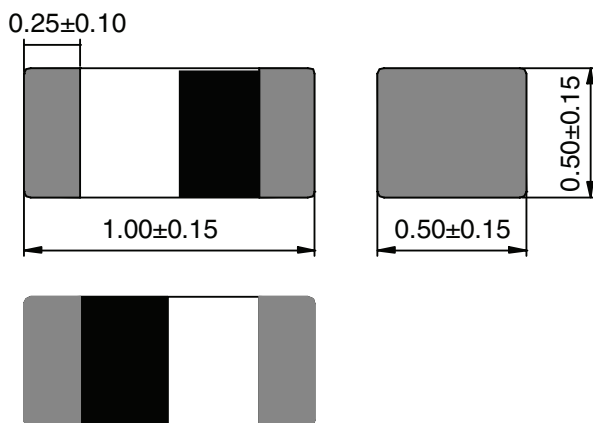
#### Notes:

- Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
- Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
- SRF measured using a HP8753C Network Analyzer.
- RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohm meter.
- Based on a 15°C maximum temperature rise.

### Mechanical

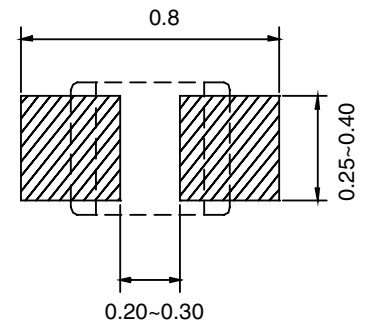
### Schematic

#### 0402CL Series



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

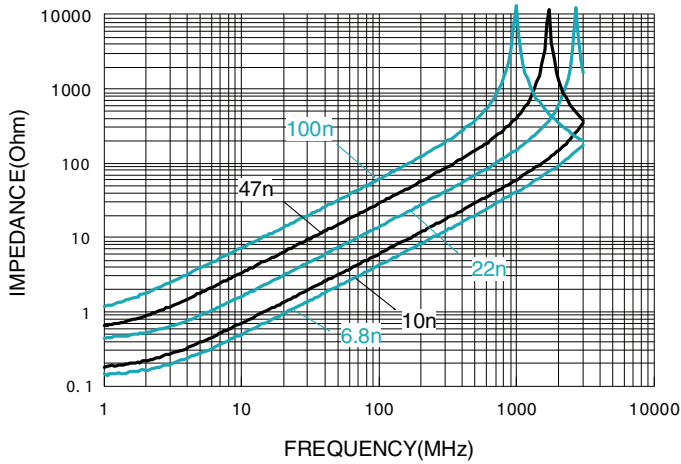
Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$



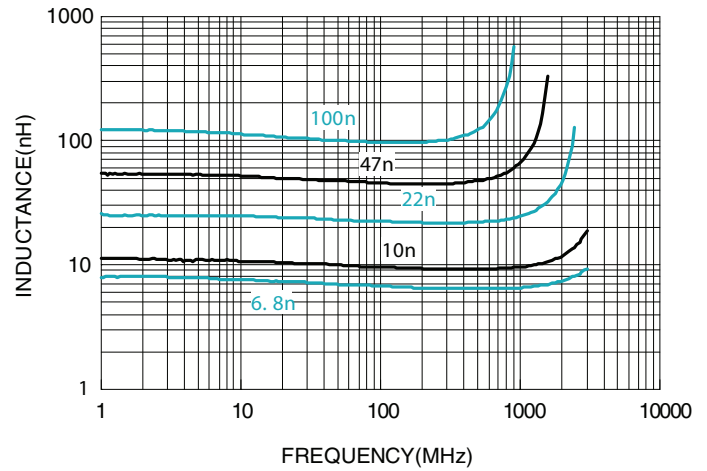
### Characteristic Graphs

0402CL Series

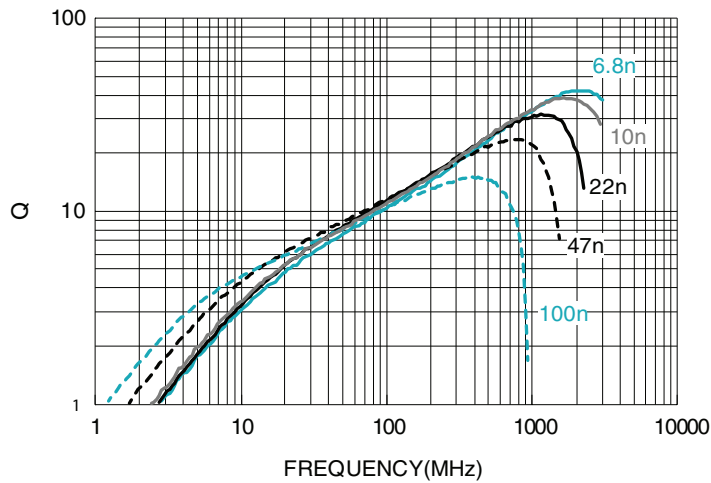
Impedance v.s. Frequency Characteristics



Inductance v.s. Frequency Characteristics



Q v.s. Frequency Characteristics



#### For More Information:

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