

PE-0402CL100JTT Datasheet

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DiGi Electronics Part Number	PE-0402CL100JTT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PE-0402CL100JTT
Description	FIXED IND 10NH 300MA 400MOHM SMD
Detailed Description	10 nH Unshielded Multilayer Inductor 300 mA 400m Ohm Max 0402 (1005 Metric)

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Purchase and inquiry

Manufacturer Product Number:

PE-0402CL100JTT

Series:

0402CL

Type:

Multilayer

Inductance:

10 nH

Current Rating (Amps):

300 mA

Shielding:

Unshielded

Q @ Freq:

8 @ 100MHz

Ratings:

-

Inductance Frequency - Test:

100 MHz

Mounting Type:

Surface Mount

Supplier Device Package:

0402

Height - Seated (Max):

0.022" (0.55mm)

Manufacturer:

Pulse Electronics

Product Status:

Active

Material - Core:

Ceramic

Tolerance:

±5%

Current - Saturation (Isat):

-

DC Resistance (DCR):

400mOhm Max

Frequency - Self Resonant:

3.2GHz

Operating Temperature:

-55°C ~ 125°C

Features:

-

Package / Case:

0402 (1005 Metric)

Size / Dimension:

0.039" L x 0.020" W (1.00mm x 0.50mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

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 - Operating Temperature -40°C to +85°C

Part Number	Inductance ¹ (nH)	Standard Tolerance	Q ² (Min.)	Test Frequency (MHz)	SRF ³ (MHz MIN)	R _{dc} ⁴ (Ω MAX)	I _{bc} ⁵ (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

Ceramic RF Chip Inductors

PE-0402CL Series



Mechanical Specification - Dimension in mm

Part Number	Inductance ¹ (nH)	Standard Tolerance	Q ² (Min.)	Test Frequency (MHz)	SRF ³ (MHz MIN)	Rdc ⁴ (Ω MAX)	Ibc ⁵ (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

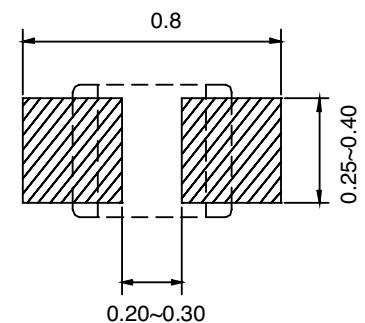
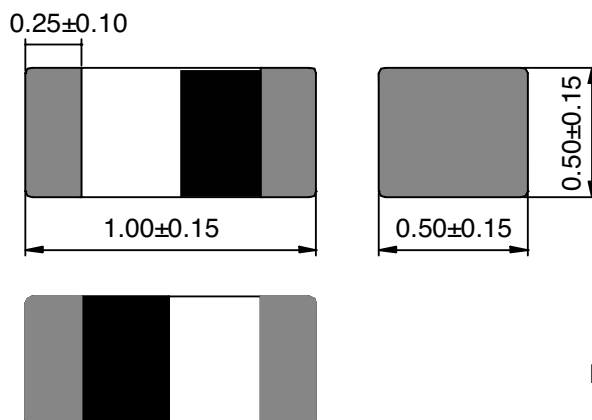
Notes:

- 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 $\pm \frac{0.10}{0.25}$

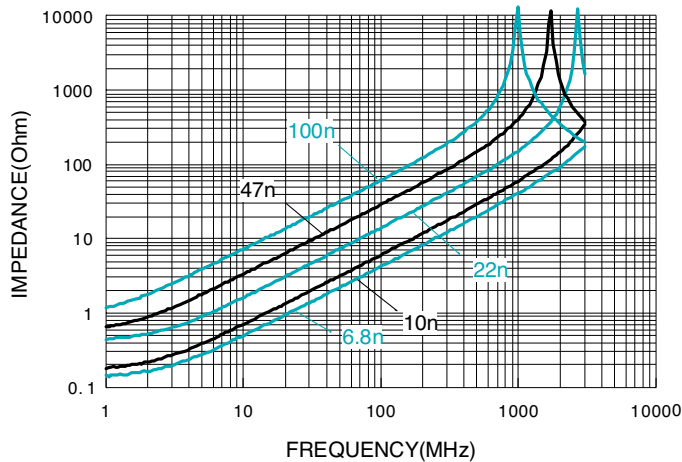
Ceramic RF Chip Inductors

PE-0402CL Series

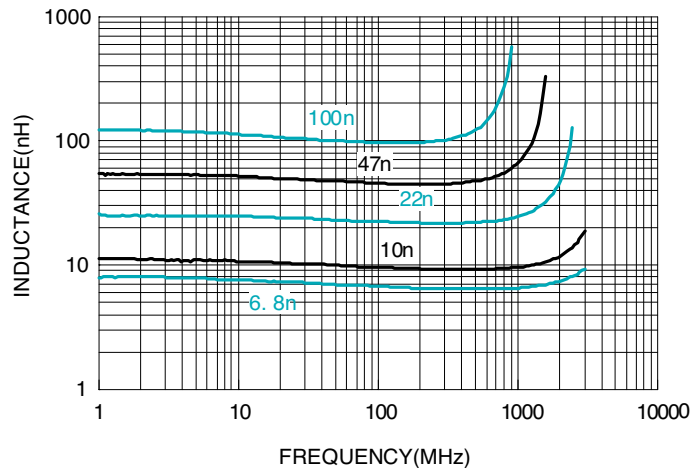
Characteristic Graphs

0402CL Series

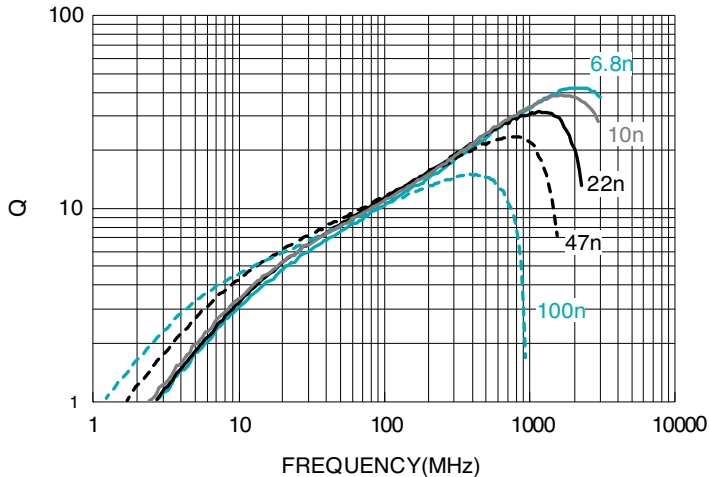
Impedance v.s. Frequency Characteristics



Inductance v.s. Frequency Characteristics



Q v.s. Frequency Characteristics



For More Information:

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