# THE DATASHEET OF

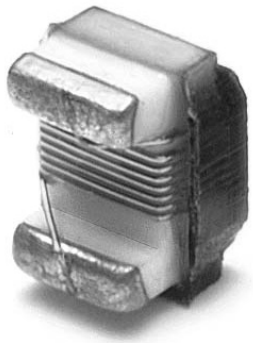
# PE-0805CD101KTT

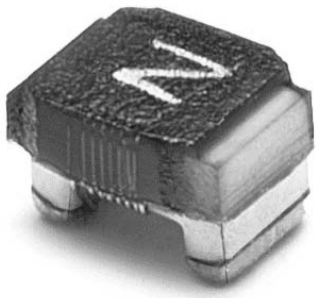
Pulse
A YAGEO Company

# RF Chip Inductors

Wire-Wound - 0402, 0603, 0805, 1008, 1206

RoHS COMPLIANT





Pulse Electronics - leading supplier of magnetics for consumer applications

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The 0402 to 1206 series range of Miniature Chip Inductors contains the very latest in wire-wound technology and Ceramic or Ferrite Core, thus providing the ultimate in performance demanded by today's Wireless products. The Inductors provide high Q and SRFs in an industry standard size and footprint. Pulse chip inductors manufactured after February 2005 are in compliance with RoHS requirements.


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# WIRE-WOUND RF CHIP INDUCTORS

## PART NUMBER LEGEND

PE — 0805 CD 121 K T T

**PACKAGE STYLE**
(0402, 0603, 0805, 1008, or 1206)

**CORE MATERIAL**
**C** = Ceramic (Alumina) **CQ** = High Q
**CD** = Standard range **FT** = Ferrite
**CM** = Alternative performance/inductance to CD

**INDUCTANCE (µH)**
Representative of the inductance value

**TOLERANCE**
**G** = ±2% **K** = ±10%
**J** = ±5%

**TERMINATION**
**T** = Gold or Tin plating (Gold plating is priority)
**G** = Gold plating only
**S** = Tin plating only

**PACKAGING** (T = Tape & Reel: 7" or 13" reel)

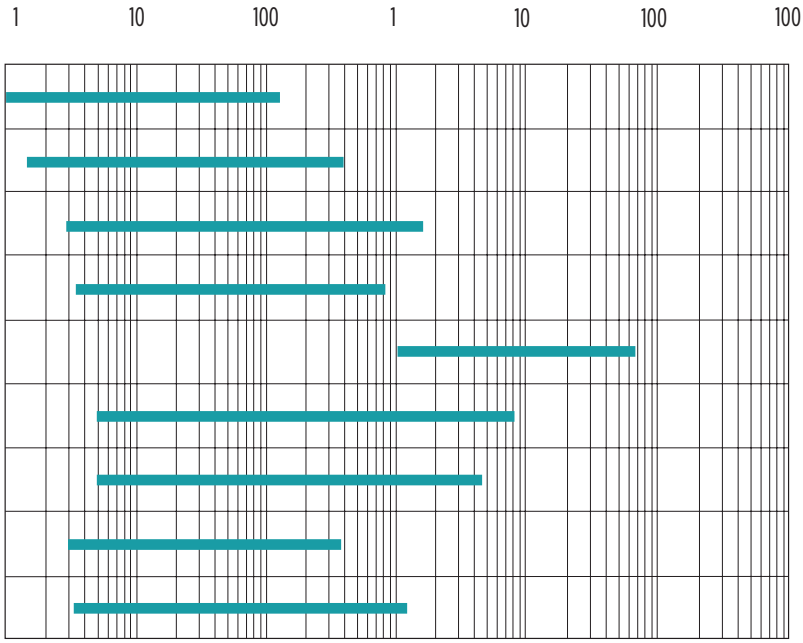
| Size | 0402 | 0603 | 0805 | 1008 | 1206 |
|---|---|---|---|---|---|
| PCs/Reel | 3000 | 2000 | 2000 | 1600 | 3000 |

# WIRE-WOUND RF CHIP INDUCTORS

## SELECTION GUIDES

### Electrical Specifications

| Part Number | Size | Construction | Inductance (nH) |
|---|---|---|---|
| **0402CD** | 0402 | Wirewound | 1.0 to 120 |
| **0603CD** | 0603 | Wirewound | 1.6 to 390 |
| **0805CD** | 0805 | Wirewound | 2.8 to 1500 |
| **0805CM** | 0805 | Wirewound | 3.3 to 820 |
| **0805FT** | 0805 | Wirewound | 1000 to 68000 |
| **1008CD** | 1008 | Wirewound | 9.7 to 8200 |
| **1008CM** | 1008 | Wirewound | 10 to 4700 |
| **1008CQ** | 1008 | Wirewound | 4.1 to 390 |
| **1206CD** | 1206 | Wirewound | 3.3 to 1200 |




**CD Series:** Standard 100% compatible with other market leaders.
**CM Series:** Offers improved electrical performance or alternative inductance values to Pulse CD series.
**CQ Series:** Offers high Q and high Idc series.
**FT Series:** Ferrite core offers higher inductance values.

### Competition Cross Reference

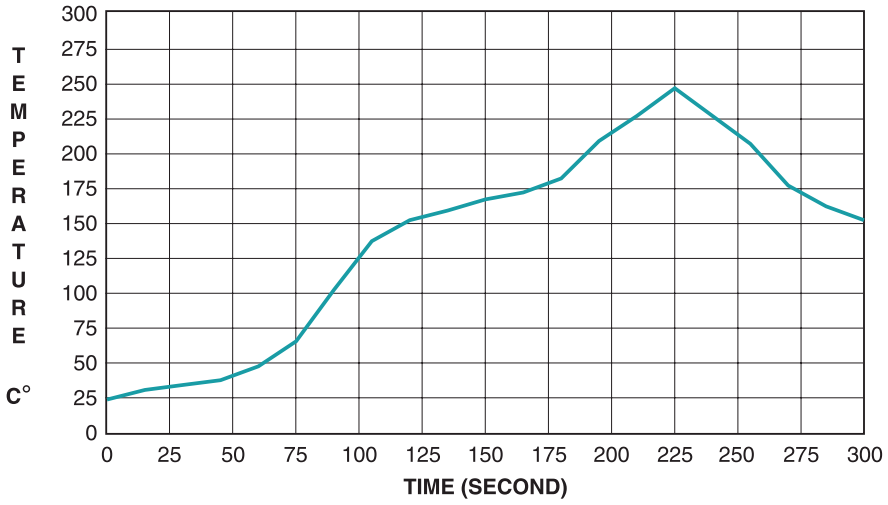
| | | Pulse Wire-Wound Inductors | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Type** | **Competition** | **0402CD** | **0603CD** | **0805CD** | **0805FT** | **1008CQ** | **1008CD** | **1206CD** |
| | **Coilcraft** | 0402CS | 0603CS | 0805CS/ HS/HT | | 1008HQ | 1008CS/ HT/CT | 1206CS |
| | **Murata** | | | LQW1608A | | | LQN21A | |
| | **Taiyo Yuden** | | | LB2012T | | | LEM_2520T | |
| | **TDK** | | | | NL2016 | | NLH2520 | |

*Table for "SMD Antennas for Wireless Devices" continued on next page ➔*

# WIRE-WOUND RF CHIP INDUCTORS

## PERFORMANCE TESTING

| Electrical Testing | | |
|---|---|---|
| **Storage and Operating Temperature Range:**<br><br>**-40˚ to +125˚C** | Inductors are subjected to the extremes for 48 hours.<br><br>Then tested at 25˚C | There shall be no deformation or change in appearance<br><br>Inductance shall not change by more than ±5%<br><br>Q values shall not change by more than ±10% |
| **Thermal:**<br><br>**-40˚ to +85˚C** | Inductors are subjected to 30 cycles for 30 minutes at each extreme.<br><br>Then tested at 25˚C | |
| **Moisture Resistance** | Inductors are subjected to 10 cycles of 24 hours at 70˚C with 90 to 95% Relative Humidity<br><br>Then tested at 25˚C | |
| **Operating Life** | Inductors are subjected to 1000 hours at 85C with 85% Relative Humidity with the rated current applied | There shall be no Damaged, Open or Shorted Windings |

| Mechanical Testing | | |
|---|---|---|
| **Temperature Range:** | Inductors are subjected to the following: Use a solder pot at 260C, with RMA Flux. Each termination is immersed in 63Sn/37Pb molten solder for 4 to 6 seconds. | There shall be no deformation or change in appearance<br><br>Inductance shall not change by more than ±5%<br><br>Q values shall not change by more than ±10% |
| **Recommended Solder Heat Resistance Profile** |  | |





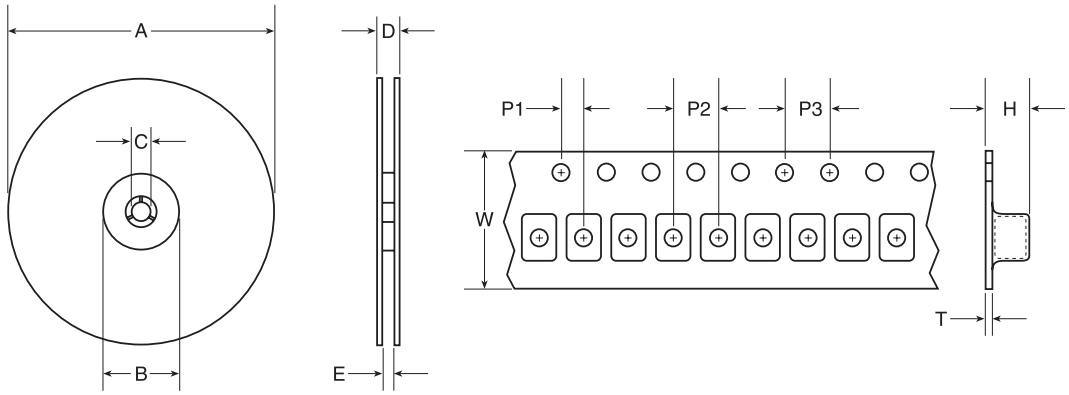
Pulse A YAGEO Company

# WIRE-WOUND RF CHIP INDUCTORS

## PERFORMANCE SPECIFICATIONS

| Electrical Specifications | | |
|---|---|---|
| **Vibration (Random)** | Samplers are subjected to random vibrations as per NAVMAT P9492 | There shall be no deformation or change in appearance<br><br>Inductance shall not change by more than ±5%<br><br>Q values shall not change by more than ±10% |
| **Mechanical Shock** | Inductors are subjected to one half sine wave pulse (8700 g's for 0.3ms) in each directional axis for a total of 18 shocks | |
| **Moisture Resistance** | Reflow Inductors on to test pads using 63 Sn/37 Pb solder paste (IR Reflow profile = 200˚C for 30 seconds or peak 235˚C for 20 seconds) | The inductors shall withstand a minimum force of 1000 g's in any direction usin a dynamometer force guage. |

## Tape and Reel Specifications




| Electrical Specifications @ 25°C – Operating Temperature -40°C to +125°C | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reels Dimensions (mm) | | | | | Tape Dimensions (mm) | | | | | |
| **Series** | **Parts per Reel** | **A** | **B** | **C** | **D** | **E** | **W** | **P1** | **P2** | **P3** | **H** | **T** |
| **0402CD** | 3000 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 1.1 | 0.3 |
| **0603CD** | 2000 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 1.7 | 0.3 |
| **0805CD** | 2000 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.1 | 0.3 |
| **0805CM** | 2000 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.1 | 0.3 |
| **0805FT** | 2000 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.1 | 0.3 |
| **1008CD** | 1600 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.6 | 0.3 |
| **1008CM** | 1600 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.6 | 0.3 |
| **1008CQ** | 1600 | 178 | 50 | 13 | 14.4 | 8.4 | 8 | 2 | 4 | 4 | 2.6 | 0.3 |
| **1206CD** | 3000 | 330 | 101 | 13 | 18.4 | 12.4 | 12 | 2 | 4 | 4 | 2.0 | 0.4 |

**Notes:** P1, P2 and P3 are same for all chip inductor series. Keeping the same dimensions for guide hole and pocket pitch (P1), pocket pitch (P2), guide hold pitch (P3) and tape width (8mm) for all series, enables the packaging machine to maintain the same settings while changing models. The only difference between the series are the parts per reel which contributes to a different length of tapes/reel per model.

# WIRE-WOUND RF CHIP INDUCTORS - 0402CD SERIES

- *Wirewound ceramic core construction*
- *High Q values*
- *High self resonant frequency*
- *Industry standard 0402 (1005) surface mount land pattern*

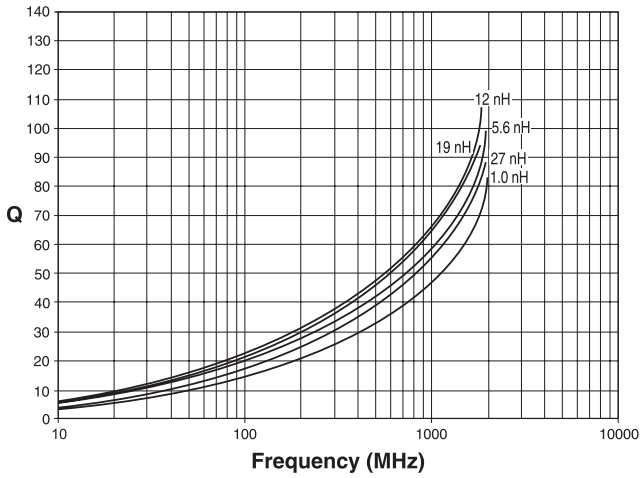
| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Part Number** | **Inductance 1** (nH) | **Standard Tolerance** | **Optional Tolerance** | **Q** (MIN) | **SRF** (MHz MIN) | **Rdc** (MHz MIN) | **Ω MAX** (mA MAX) |
| **PE-0402CD1N0JTG** | 1.0 @ 250MHz | ±5% | | 13 @ 250MHz | 6000 | 0.045 | 1360 |
| **PE-0402CD3N3JTT** | 3.3 @ 250MHz | ±5% | | 20 @ 250MHz | 6000 | 0.066 | 840 |
| **PE-0402CD3N6JTT** | 3.6 @ 250MHz | ±5% | ±10% (K) | 20 @ 250MHz | 6000 | 0.066 | 840 |
| **PE-0402CD3N9JTT** | 3.9 @ 250MHz | ±5% | ±10% (K) | 20 @ 250MHz | 5800 | 0.083 | 840 |
| **PE-0402CD5N1JTT** | 5.1 @ 250MHz | ±5% | | 23 @ 250MHz | 5800 | 0.083 | 800 |
| **PE-0402CD5N6JTG** | 5.6 @ 250MHz | ±5% | | 23 @ 250MHz | 5800 | 0.083 | 760 |
| **PE-0402CD6N2JTT** | 6.2 @ 250MHz | ±5% | ±10% (K) | 20 @ 250MHz | 5800 | 0.083 | 760 |
| **PE-0402CD6N8JTT** | 6.8 @ 250MHz | ±5% | ±10% (K) | 25 @ 250MHz | 5800 | 0.083 | 680 |
| **PE-0402CD7N5JTG** | 7.5 @ 250MHz | ±5% | ±10% (K) | 25 @ 250MHz | 5800 | 0.104 | 680 |
| **PE-0402CD8N2JTT** | 8.2 @ 250MHz | ±5% | | 21 @ 250MHz | 4400 | 0.104 | 680 |
| **PE-0402CD9N0JTG** | 9.0 @ 250MHz | ±5% | | 21 @ 250MHz | 4160 | 0.104 | 680 |
| **PE-0402CD100JTT** | 10 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 21 @ 250MHz | 3900 | 0.195 | 480 |
| **PE-0402CD110JTT** | 11 @ 250MHz | ±5% | | 26 @ 250MHz | 3680 | 0.120 | 640 |
| **PE-0402CD120JTT** | 12 @ 250MHz | ±5% | | 26 @ 250MHz | 3600 | 0.120 | 640 |
| **PE-0402CD150JTT** | 15 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 26 @ 250MHz | 3280 | 0.172 | 560 |
| **PE-0402CD180JTG** | 18 @ 250MHz | ±5% | ±10% (K) | 26 @ 250MHz | 3100 | 0.230 | 520 |
| **PE-0402CD190JTT** | 19 @ 250MHz | ±5% | | 26 @ 250MHz | 3040 | 0.202 | 480 |
| **PE-0402CD200GTT** | 20 @ 250MHz | ±2% | | 26 @ 250MHz | 3000 | 0.250 | 480 |
| **PE-0402CD220JTG** | 22 @ 250MHz | ±5% | | 26 @ 250MHz | 2800 | 0.300 | 400 |
| **PE-0402CD230JTT** | 23 @ 250MHz | ±5% | | 26 @ 250MHz | 2720 | 0.214 | 400 |
| **PE-0402CD240GTT** | 24 @ 250MHz | ±2% | | 26 @ 250MHz | 2700 | 0.300 | 400 |
| **PE-0402CD270JTT** | 27 @ 250MHz | ±5% | | 25 @ 250MHz | 248 | 0.298 | 400 |
| **PE-0402CD330JTG** | 33 @ 250MHz | ±5% | | 26 @ 250MHz | 2350 | 0.350 | 350 |
| **PE-0402CD360GTG** | 36 @ 250MHz | ±2% | | 25 @ 250MHz | 2320 | 0.403 | 320 |
| **PE-0402CD400JTG** | 40 @ 250MHz | ±5% | | 25 @ 250MHz | 2240 | 0.438 | 320 |
| **PE-0402CD470JTT** | 47 @ 250MHz | ±5% | | 25 @ 250MHz | 2100 | 0.830 | 100 |
| **PE-0402CD680JTT** | 68 @ 250MHz | ±5% | ±10% (K) | 16 @ 250MHz | 1840 | 0.970 | 100 |
| **PE-0402CD820JTT** | 82 @ 250MHz | ±5% | | 16 @ 250MHz | 1680 | 1.250 | 100 |
| **PE-0402CD101JTT** | 100 @ 250MHz | ±5% | | 16 @ 250MHz | 1620 | 2.600 | 100 |
| **PE-0402CD121JTT** | 120 @ 250MHz | ±5% | ±5% (J) | 14 @ 250MHz | 1520 | 2.700 | 90 |

# WIRE-WOUND RF CHIP INDUCTORS - 0402CD SERIES

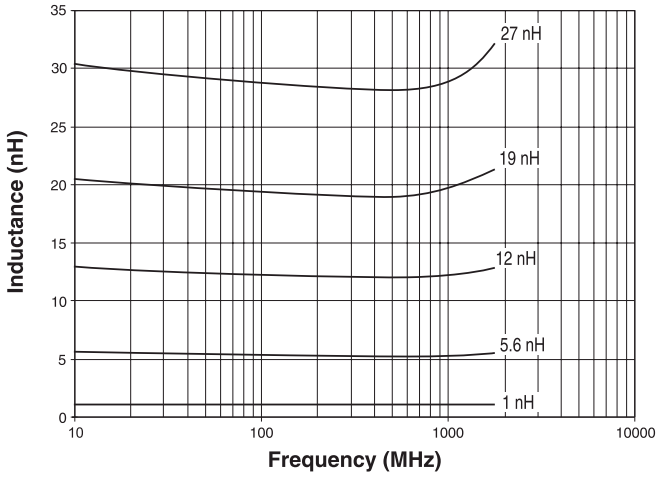
**Notes:**

1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. $R_{DC}$ measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15°C maximum temperature rise.
6. Component Weight: 0.002 grams typical.

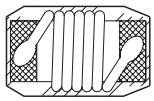
## Typical Q vs Frequency

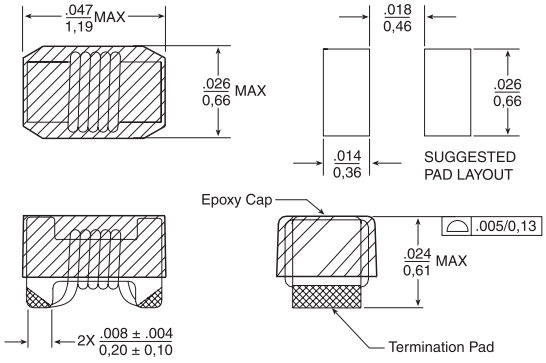


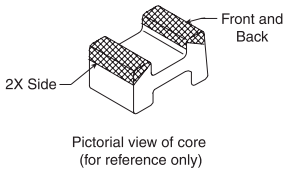

## Typical Inductance vs Frequency




## Mechanical





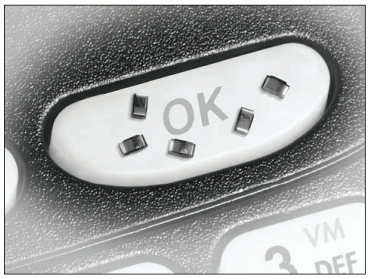

Pictorial view of core (for reference only)

**Weight** .....0.002grams
**Tape & Reel** .....3000/reel

**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

# WIRE-WOUND RF CHIP INDUCTORS - 0603CD SERIES



- *Wirewound ceramic core construction*
- *High Q values*
- *High self resonant frequency*
- *Industry standard 0603 (1608) surface mount land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| PE-0603CD1N6KTT | 1.6 @ 250MHz | ±10% | | 24 @ 250MHz | 6000.0 | 0.03 | 700.0 |
| PE-0603CD010KTT | 1.7 @ 250MHz | ±10% | | 16 @ 250MHz | 6000.0 | 0.05 | 700.0 |
| PE-0603CD1N8JTT | 1.8 @ 250MHz | ±5% | | 16 @ 250MHz | 6000.0 | 0.05 | 700.0 |
| PE-0603CD2N2KTT | 2.2 @ 250MHz | ±10% | | 18 @ 250MHz | 6000.0 | 0.11 | 700.0 |
| PE-0603CD3N6JTT | 3.6 @ 250MHz | ±5% | | 20 @ 250MHz | 6000.0 | 0.07 | 700.0 |
| PE-0603CD030JTT | 3.9 @ 250MHz | ±5% | ±10% (K) | 20 @ 250MHz | 6000.0 | 0.08 | 700.0 |
| PE-0603CD4N3JTT | 4.3 @ 250MHz | ±5% | | 20 @ 250MHz | 6000.0 | 0.10 | 700.0 |
| PE-0603CD040JTT | 4.55 @ 250MHz | ±5% | ±10% (K) | 20 @ 250MHz | 5800.0 | 0.11 | 700.0 |
| PE-0603CD4N7JTT | 4.7 @ 250MHz | ±5% | ±2% (G) | 20 @ 250MHz | 5800.0 | 0.12 | 700.0 |
| PE-0603CD5N1JTT | 5.1 @ 250MHz | ±5% | ±2% (G) | 20 @ 250MHz | 5700.0 | 0.11 | 700.0 |
| PE-0603CD5N6GTT | 5.6 @ 250MHz | ±2% | ±10% (K) | 25 @ 250MHz | 5500.0 | 0.11 | 700.0 |
| PE-0603CD6N2JTT | 6.2 @ 250MHz | ±5% | ±2% (G) | 25 @ 250MHz | 5800.0 | 0.11 | 700.0 |
| PE-0603CD060JTT | 6.68 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 25 @ 250MHz | 5800.0 | 0.11 | 700.0 |
| PE-0603CD6N8JTT | 6.8 @ 250MHz | ±5% | ±2% (G) | 27 @ 250MHz | 5800.0 | 0.12 | 700.0 |
| PE-0603CD7N5GTT | 7.5 @ 250MHz | ±2% | | 28 @ 250MHz | 4800.0 | 0.12 | 700.0 |
| PE-0603CD080JTT | 8.2 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 30 @ 250MHz | 4600.0 | 0.12 | 700.0 |
| PE-0603CD8N7JTT | 8.7 @ 250MHz | ±5% | ±2% (G) | 28 @ 250MHz | 4600.0 | 0.11 | 700.0 |
| PE-0603CD9N5GTT | 9.5 @ 250MHz | ±2% | ±10% (K) | 28 @ 250MHz | 5400.0 | 0.14 | 700.0 |
| PE-0603CD100JTT | 10 @ 250MHz | ±5% | ±2% (G) | 30 @ 250MHz | 4800.0 | 0.13 | 700.0 |
| PE-0603CD110GTT | 11 @ 250MHz | ±2% | ±10% (K) | 30 @ 250MHz | 4000.0 | 0.09 | 700.0 |
| PE-0603CD120JTT | 12 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 30 @ 250MHz | 4000.0 | 0.13 | 700.0 |
| PE-0603CD130JTT | 13 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 38 @ 250MHz | 3600.0 | 0.11 | 700.0 |
| PE-0603CD150JTT | 15 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 30 @ 250MHz | 4000.0 | 0.17 | 700.0 |
| PE-0603CD160JTT | 16 @ 250MHz | ±5% | ±2% (G) | 35 @ 250MHz | 3300.0 | 0.17 | 700.0 |
| PE-0603CD180JTT | 18 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 180MHz | 3100.0 | 0.17 | 700.0 |
| PE-0603CD220JTT | 22 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 250MHz | 3000.0 | 0.19 | 700.0 |
| PE-0603CD230GTT | 23 @ 250MHz | ±2% | | 38 @ 250MHz | 2850.0 | 0.19 | 700.0 |
| PE-0603CD240JTT | 24 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 250MHz | 2650.0 | 0.20 | 600.0 |

**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 0603CD SERIES

| Electrical Specifications @ 25°C (continued) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| PE-0603CD270JTT | 27 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 250MHz | 2800.0 | 0.22 | 600.0 |
| PE-0603CD300JTT | 30 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 37 @ 250MHz | 2250.0 | 0.14 | 600.0 |
| PE-0603CD330JTT | 33 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 250MHz | 2300.0 | 0.22 | 600.0 |
| PE-0603CD360GTT | 36 @ 250MHz | ±2% | | 37 @ 250MHz | 2080.0 | 0.25 | 600.0 |
| PE-0603CD390JTT | 39 @ 250MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 250MHz | 2200.0 | 0.25 | 600.0 |
| PE-0603CD430GTT | 43 @ 250MHz | ±2% | | 35 @ 250MHz | 2000.0 | 0.28 | 600.0 |
| PE-0603CD470JTT | 47 @ 200MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 200MHz | 2000.0 | 0.28 | 600.0 |
| PE-0603CD510GTT | 51 @ 200MHz | ±2% | | 35 @ 200MHz | 1900.0 | 0.27 | 600.0 |
| PE-0603CD560JTT | 56 @ 200MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 200MHz | 1900.0 | 0.31 | 600.0 |
| PE-0603CD680JTT | 68 @ 200MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 200MHz | 1700.0 | 0.34 | 600.0 |
| PE-0603CD720GTT | 72 @ 150MHz | ±2% | ±10% (K) | 34 @ 150MHz | 1700.0 | 0.49 | 400.0 |
| PE-0603CD820JTT | 82 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 34 @ 150MHz | 1700.0 | 0.54 | 400.0 |
| PE-0603CD101JTT | 98.50 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 34 @ 150MHz | 1400.0 | 0.58 | 400.0 |
| PE-0603CDR10JTT | 100 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 34 @ 150MHz | 1400.0 | 0.58 | 400.0 |
| PE-0603CD111JTT | 110 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 33 @ 150MHz | 1300.0 | 0.61 | 300.0 |
| PE-0603CDR12JTT | 120 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 32 @ 150MHz | 1300.0 | 0.65 | 300.0 |
| PE-0603CD121JTT | 122 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 33 @ 150MHz | 1300.0 | 0.65 | 300.0 |
| PE-0603CD151JTT | 150 @ 150MHz | ±5% | ±10% (K), ±2% (G) | 28 @ 150MHz | 990.0 | 0.92 | 280.0 |
| PE-0603CD181JTT | 180 @ 100MHz | ±5% | ±10% (K), ±2% (G) | 25 @ 100MHz | 990.0 | 1.25 | 240.0 |
| PE-0603CD201GTT | 200 @ 250MHz | ±2% | | 25 @ 100MHz | 900.0 | | |
| PE-0603CD211JTT | 210 @ 100MHz | ±5% | ±2% (G) | 27 @ 100MHz | 895.0 | 2.06 | 220.0 |
| PE-0603CD221JTT | 220 @ 100MHz | ±5% | ±10% (K), ±2% (G) | 25 @ 100MHz | 900.0 | 1.90 | 200.0 |
| PE-0603CD251GTT | 250 @ 100MHz | ±2% | | 25 @ 100MHz | 822.0 | 3.55 | 180.0 |
| PE-0603CD271JTT | 270 @ 100MHz | ±5% | ±10% (K), ±2% (G) | 24 @ 100MHz | 860.0 | 2.30 | 170.0 |
| PE-0603CD331JTT | 330 @ 100MHz | ±5% | ±10% (K) | 22 @ 100MHz | 500.0 | 2.300 | 150.0 |
| PE-0603CD391JTT | 390 @ 100MHz | ±5% | ±10% (K) | 20 @ 250 MHz | 350.0 | 2.90 | 130.0 |

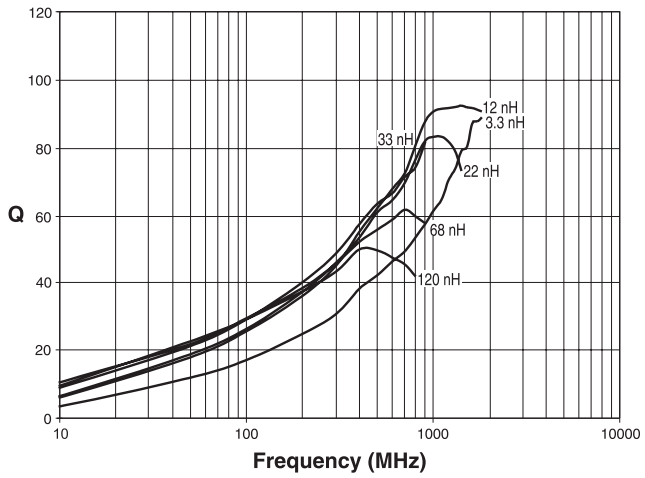
**Notes:**

1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15°C maximum temperature rise.
6. 5-sides o top side epoxy cap.

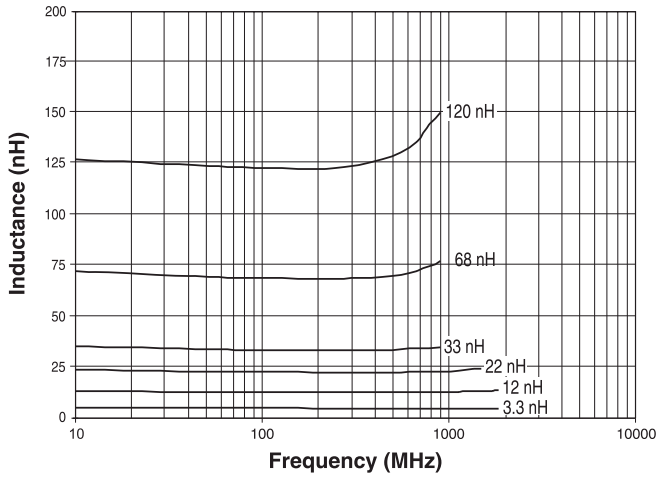
**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 0603CD Series

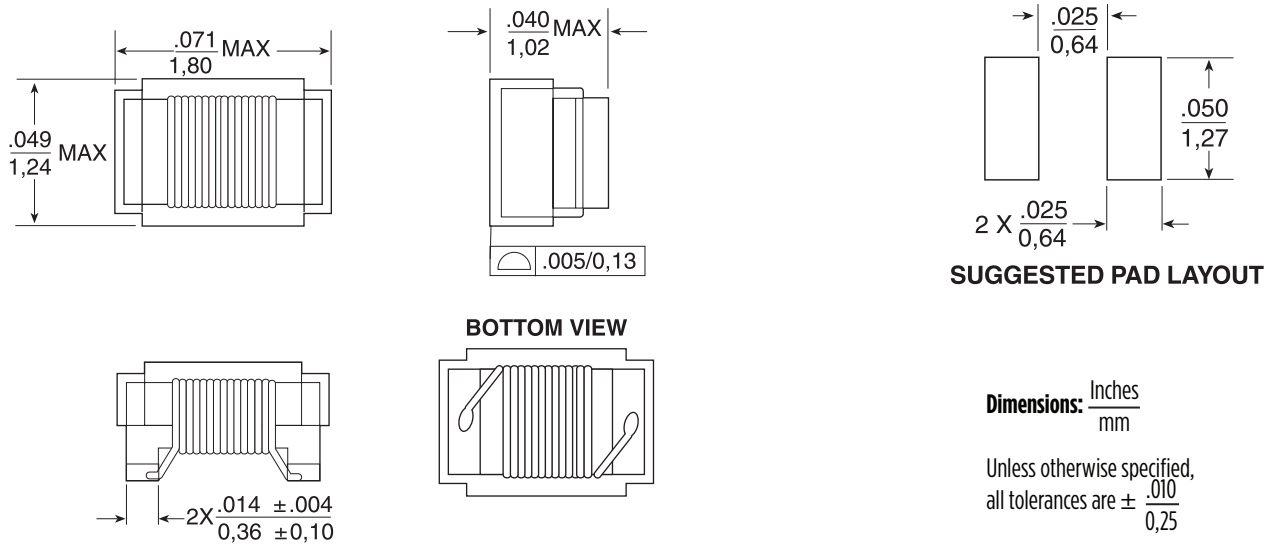
## Typical Q vs Frequency




## Typical Inductance vs Frequency




## Mechanical




**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25



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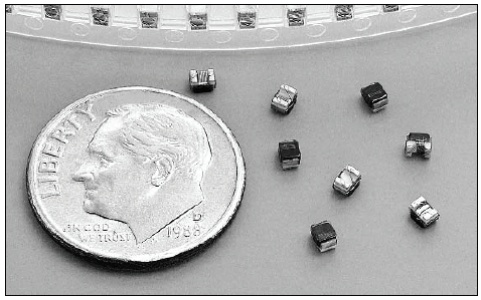
# WIRE-WOUND RF CHIP INDUCTORS - 0805CD SERIES



- *Wirewound ceramic core construction*
- *High Q values*
- *High self resonant frequency*
- *Industry standard 0805 (2012) surface mount land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Part Number** | **Inductance**[1] (nH) | **Standard Tolerance** | **Optional Tolerance** | **Q**[2] (MIN) | **SRF**[3] (MHz MIN) | **RDC**[4] (Ω MAX) | **IDC**[5] (mA MAX) |
| **PE-0805CD2N8KTT** | 2.8 @ 250MHz | ±10% (K) | | 80 @ 1500MHz | >6000 | 0.06 | 600 |
| **PE-0805CD3N0KTT** | 3.0 @ 250MHz | ±10% (K) | ±5% (J) | 65 @ 1500MHz | >6000 | 0.06 | 600 |
| **PE-0805CD030KTT** | 3.32 @ 250MHz | ±10% (K) | ±5% (J) | 40 @ 1500MHz | 6000 | 0.08 | 600 |
| **PE-0805CD050KTT** | 5.6 @ 250MHz | ±5% (J) | | 50 @ 1500MHz | 5500 | 0.10 | 600 |
| **PE-0805CD060KTT** | 6.5 @ 250MHz | ±10% (K) | | 50 @ 1000MHz | 5000 | 0.11 | 600 |
| **PE-0805CD7N5KTT** | 7.5 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 1000MHz | 4500 | 0.14 | 600 |
| **PE-0805CD080KTT** | 7.9 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 1000MHz | 4700 | 0.12 | 600 |
| **PE-0805CD100KTT** | 10.2 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 4100 | 0.14 | 600 |
| **PE-0805CD120KTT** | 11.9 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 4000 | 0.15 | 600 |
| **PE-0805CD150KTT** | 14.9 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 3400 | 0.17 | 600 |
| **PE-0805CD180KTT** | 17.95 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 3300 | 0.20 | 600 |
| **PE-0805CD220KTT** | 21.7 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 55 @ 500MHz | 2600 | 0.22 | 500 |
| **PE-0805CD240KTT** | 24 @250MHz | ±5% (J) | | 50 @ 500MHz | 2000 | 0.22 | 500 |
| **PE-0805CD270KTT** | 26.5 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 55 @ 500MHz | 2500 | 0.25 | 500 |
| **PE-0805CD330KTT** | 32.75 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 2050 | 0.27 | 500 |
| **PE-0805CD360KTT** | 36 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 55 @ 500MHz | 1700 | 0.27 | 500 |
| **PE-0805CD390KTT** | 38.5 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 2000 | 0.29 | 500 |
| **PE-0805CD430KTT** | 43 @ 200MHz | ±5% (J) | ±2% (G) | 60 @ 500MHz | 1650 | 0.34 | 500 |
| **PE-0805CD470KTT** | 46.6 @ 200MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1650 | 0.31 | 500 |
| **PE-0805CD560KTT** | 55.5 @ 200MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1550 | 0.34 | 500 |
| **PE-0805CD680KTT** | 67.8 @ 200MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1450 | 0.38 | 500 |
| **PE-0805CD820KTT** | 82.7 @ 150MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1300 | 0.42 | 400 |
| **PE-0805CD910KTT** | 91 @ 150MHz | ±10% (K) | ±5% (J), ±2% (G) | 65 @ 500MHz | 1200 | 0.44 | 400 |
| **PE-0805CD101KTT** | 98.7 @ 150MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1200 | 0.46 | 400 |
| **PE-0805CD111KTT** | 110 @ 150MHz | ±5% (J) | ±2% (G) | 50 @ 250MHz | 1000 | 0.48 | 400 |

**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 0805CD Series

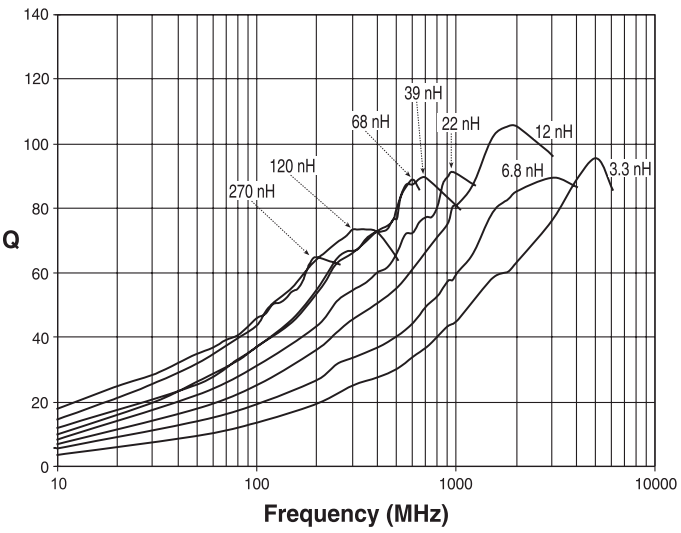
| Electrical Specifications @ 25°C (continued) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| PE-0805CD121KTT | 119.7 @ 150MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 250MHz | 1100 | 0.51 | 400 |
| PE-0805CD151KTT | 149.4 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 250MHz | 920 | 0.56 | 400 |
| PE-0805CD181KTT | 179.6 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 250MHz | 870 | 0.64 | 400 |
| PE-0805CD221KTT | 217 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 250MHz | 850 | 0.70 | 400 |
| PE-0805CD241KTT | 240 @ 100MHz | ±5% (J) | ±2% (G) | 44 @ 250MHz | 690 | 1.00 | 350 |
| PE-0805CD271KTT | 269 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 250MHz | 650 | 1.00 | 350 |
| PE-0805CD331KTT | 331 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 250MHz | 600 | 1.40 | 310 |
| PE-0805CD391KTT | 386 @ 50MHz | ±10% (K) | ±5% (J), ±2% (G) | 35 @ 250MHz | 560 | 1.50 | 290 |
| PE-0805CD471KTT | 477 @ 25MHz | ±10% (K) | ±5% (J), ±2% (G) | 33 @ 100MHz | 375 | 1.76 | 250 |
| PE-0805CD561KTT | 545 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 23 @ 50MHz | 340 | 1.90 | 230 |
| PE-0805CD681KTT | 674 @ 25MHz | ±10% (K) | ±5% (J), ±2% (G) | 23 @ 50MHz | 188 | 2.20 | 190 |
| PE-0805CD821KTT | 783 @ 25MHz | ±5% (J) | ±2% (G) | 23 @ 50MHz | 215 | 2.35 | 180 |
| PE-0805CD102KTT | 1000 @25MHz | ±5% (J) | ±2% (G) | 20 @ 50MHz | 200 | 3.60 | 150 |
| PE-0805CD122KTT | 1200 @ 25MHz | ±5% (J) | ±2% (G) | 20 @ 50MHz | 200 | 4.10 | 120 |
| PE-0805CD152KTT | 1500 @ 25MHz | ±10% (K) | ±5% (J), ±2% (G) | 20 @ 50MHz | 200 | 5.00 | 100 |

*** For other inductance values in 0805 size, please refer to 0805CM (page 14) an 0805FT (page 16). ***

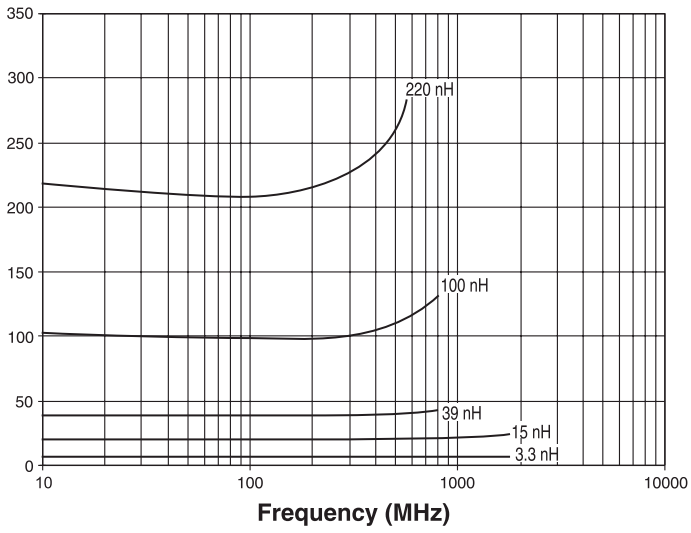
**Notes:**

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

## Typical Q vs Frequency




## Typical Inductance vs Frequency



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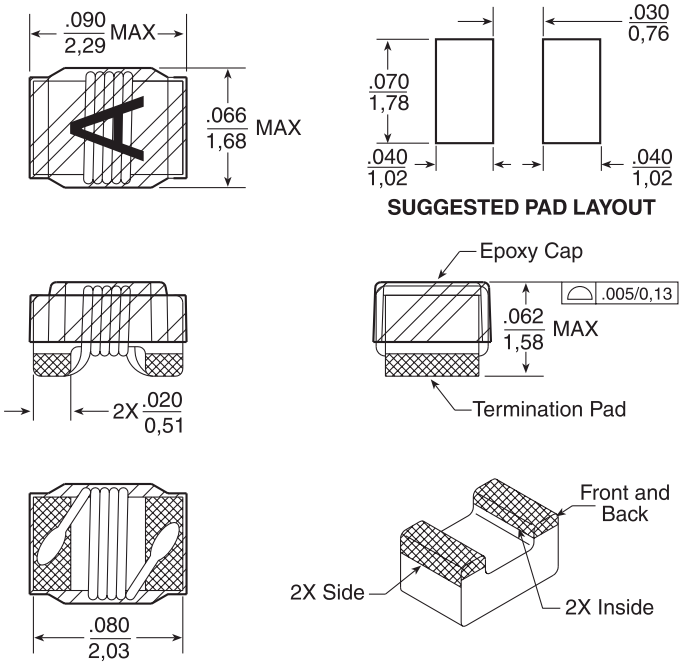
# WIRE-WOUND RF CHIP INDUCTORS - 0805CD SERIES

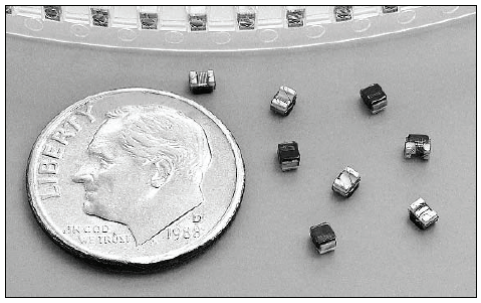
## Mechanical




**Weight** .....0.012grams
**Tape & Reel** .....2000/reel
**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

# WIRE-WOUND RF CHIP INDUCTORS - 0805CM SERIES



- *Wirewound ceramic core construction*
- *High Q values*
- *High self resonant frequency*
- *Industry standard 0805 (2012) surface mount land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| PE-0805CM030KTT | 3.3 @ 250MHz | ±10% (K) | ±5% (J) | 37 @ 1500MHz | 5000 | 0.08 | 600 |
| PE-0805CM060KTT | 6.8 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 46 @ 1000MHz | 5000 | 0.15 | 600 |
| PE-0805CM080KTT | 8.2 @ 250MHz | ±5% (J) | ±2% (G) | 47 @ 1000MHz | 3900 | 0.13 | 600 |
| PE-0805CM100KTT | 10 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 3900 | 0.10 | 600 |
| PE-0805CM120KTT | 12 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 2900 | 0.13 | 600 |
| PE-0805CM150KTT | 15 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 500MHz | 2700 | 0.15 | 600 |
| PE-0805CM180KTT | 18 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @500MHz | 2600 | 0.13 | 600 |
| PE-0805CM220KTT | 22 @ 250MHz | ±10% (K) | ±5% (J), ±2% (G) | 55 @ 500MHz | 2200 | 0.13 | 500 |
| PE-0805CM270KTT | 27 @ 250MHz | ±10% (K) | ±5% (J) | 55 @ 500MHz | 2000 | 0.23 | 500 |
| PE-0805CM330KTT | 33 @ 250MHz | ±10% (K) | ±5% (J) | 58 @ 500MHz | 1800 | 0.18 | 500 |
| PE-0805CM390KTT | 39 @ 250MHz | ±5% (J) | | 60 @ 500MHz | 1600 | 0.23 | 500 |
| PE-0805CM470KTT | 47 @ 200MHz | ±10% (K) | ±5% (J) | 60 @ 500MHz | 1650 | 0.25 | 500 |
| PE-0805CD560KTT | 56 @200MHz | ±10% (K) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1300 | 0.16 | 500 |
| PE-0805CM680KTT | 68 @ 200MHz | ±5% (J) | | 60 @ 500MHz | 1350 | 0.18 | 500 |
| PE-0805CM820KTT | 82 @ 150MHz | ±5% (J) | ±5% (J), ±2% (G) | 60 @ 500MHz | 1300 | 0.36 | 400 |
| PE-0805CM101KTT | 100 @ 150MHz | ±10% (K) | ±2% (G) | 55 @ 500MHz | 1100 | 0.36 | 400 |
| PE-0805CM121KTT | 120 @ 150MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 250MHz | 1100 | 0.56 | 350 |
| PE-0805CM151KTT | 150 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 250MHz | 900 | 0.56 | 350 |
| PE-0805CM181KTT | 180 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 50 @ 250MHz | 875 | 0.69 | 300 |
| PE-0805CM221KTT | 220 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 250MHz | 800 | 0.85 | 300 |
| PE-0805CM271KTT | 270 @ 100MHz | ±5% (J) | ±2% (G) | 40 @ 100MHz | 800 | 0.90 | 300 |
| PE-0805CM331KTT | 330 @ 100MHz | ±10% (K) | ±5% (J), ±2% (G) | 40 @ 100MHz | 775 | 1.28 | 300 |
| PE-0805CM391KTT | 390 @ 100MHz | ±2% (G) | | 40 @ 100MHz | 725 | 1.70 | 300 |
| PE-0805CM471KTT | 470 @ 100MHz | ±10% (K) | ±5% (J) | 38 @ 100MHz | 600 | 3.25 | 240 |
| PE-0805CM561KTT | 560 @ 100MHz | ±10% (K) | ±5% (J) | 40 @ 100MHz | 600 | 3.10 | 240 |
| PE-0805CM681KTT | 680 @ 50MHz | ±10% (K) | ±5% (J), ±2% (G) | 32 @ 50MHz | 550 | 3.50 | 240 |
| PE-0805CM821KTT | 820 @ 50MHz | ±5% (J) | | 23 @ 50MHz | 215 | 2.35 | 200 |

**(Continued on next page)**



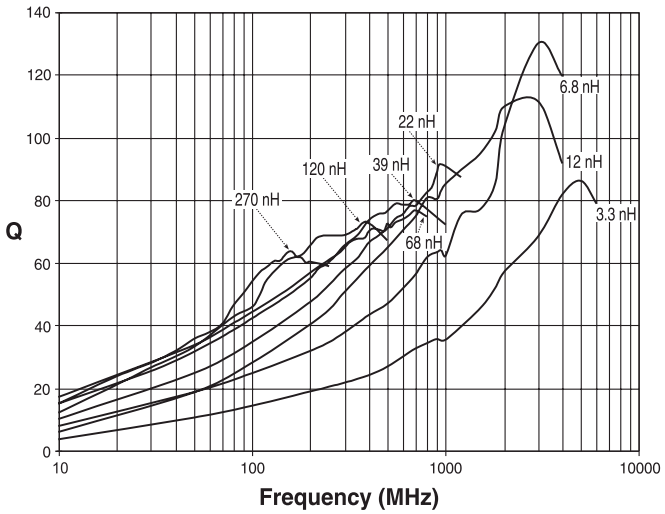
Pulse A YAGEO Company

# WIRE-WOUND RF CHIP INDUCTORS - 0805CM SERIES

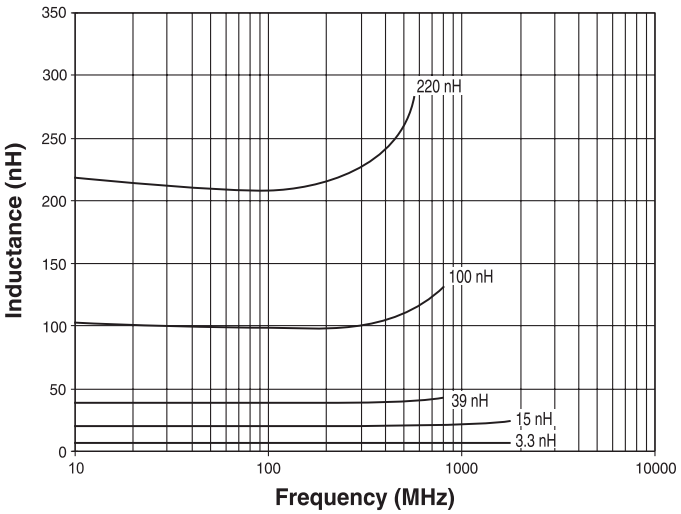
**Notes:**

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

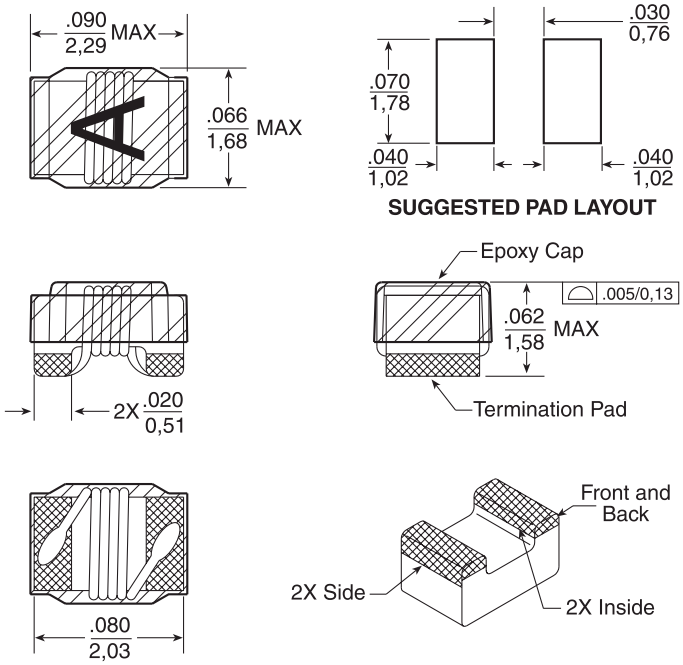
## Typical Q vs Frequency




## Typical Inductance vs Frequency



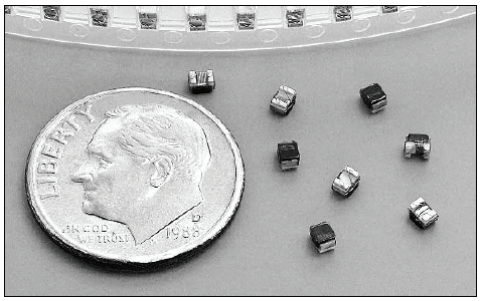

## Mechanical




**Weight** .....0.012grams
**Tape & Reel** .....2000/reel
**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

# WIRE-WOUND RF CHIP INDUCTORS - 0805FT SERIES



- *Wirewound ceramic core construction*
- *High Q values and resonant frequency*
- *Industry standard 0805 (2012) surface mount land pattern*

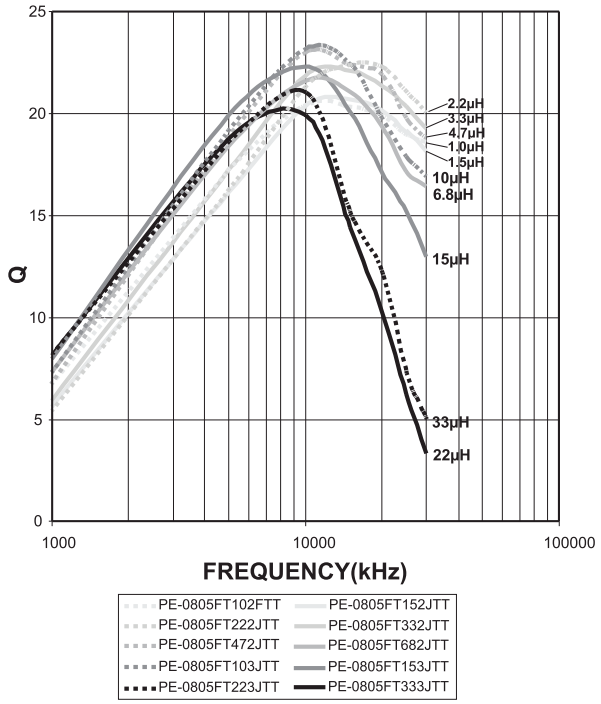
See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Part Number** | **Inductance**[1] (nH) | **Standard Tolerance** | **Optional Tolerance** | **Q**[2] (MIN) | **SRF**[3] (MHz MIN) | **RDC**[4] (Ω MAX) | **IDC**[5] (mA MAX) |
| **PE-0805FT102KTT** | 1.0 @ 7.96MHz | ±5% (J) | | 15 @ 7.96MHz | 63 | 1.20 | 245 |
| **PE-0805FT152KTT** | 1.5 @ 7.96MHz | ±10% (K) | ±5% (J) | 15 @ 7.96MHz | 60 | 1.45 | 225 |
| **PE-0805FT222KTT** | 2.2 @ 7.96MHz | ±10% (K) | ±5% (J) | 15 @ 7.96MHz | 58 | 1.80 | 200 |
| **PE-0805FT332KTT** | 3.3 @ 7.96MHz | ±10% (K) | ±5% (J) | 15 @ 7.96MHz | 50 | 2.30 | 175 |
| **PE-0805FT472KTT** | 4.7 @ 7.96MHz | ±10% (K) | ±5% (J) | 15 @ 7.96MHz | 43 | 2.80 | 140 |
| **PE-0805FT682KTT** | 6.8 @ 7.96MHz | ±10% (K) | ±5% (J) | 15 @ 7.96MHz | 36 | 3.40 | 115 |
| **PE-0805FT103KTT** | 10 @ 2.52MHz | ±10% (K) | ±5% (J) | 10 @ 2.52MHz | 30 | 4.70 | 98 |
| **PE-0805FT153KTT** | 15 @ 2.52MHz | ±10% (K) | ±5% (J) | 10 @ 2.52MHz | 23 | 6.50 | 80 |
| **PE-0805FT223KTT** | 22 @ 2.52MHz | ±10% (K) | ±5% (J) | 10 @ 2.52MHz | 20 | 8.00 | 68 |
| **PE-0805FT333KTT** | 33 @ 2.52MHz | ±10% (K) | ±5% (J) | 10 @ 2.52MHz | 17 | 10.70 | 60 |
| **PE-0805FT473KTT** | 47 @ 2.52MHz | ±10% (K) | ±5% (J) | 10 @ 2.52MHz | 14 | 13.80 | 55 |
| **PE-0805FT683KTT** | 68 @ 2.52MHz | ±10% (K) | ±5% (J) | 8 @ 2.52MHz | 11 | 17.50 | 49 |

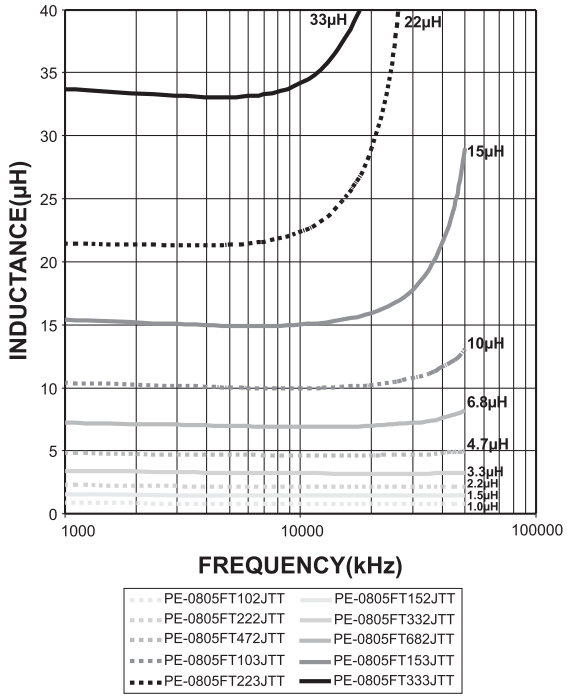
**Notes:**

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

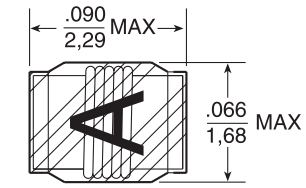
## Typical Q vs Frequency

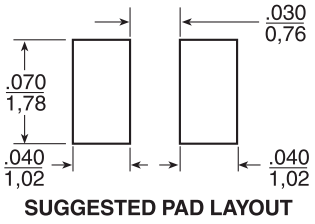



## Typical Inductance vs Frequency

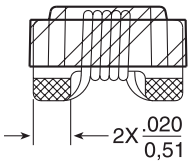


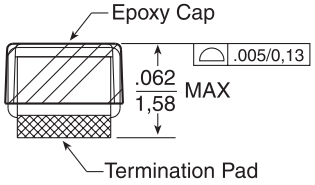

## Mechanical

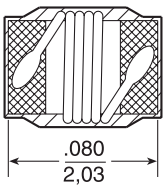


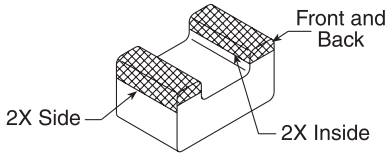




SUGGESTED PAD LAYOUT



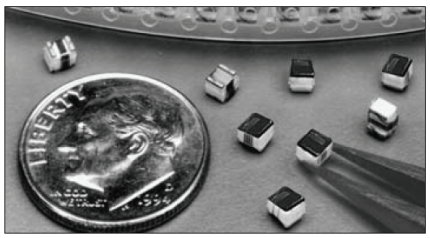




**Weight** .....0.012grams
**Tape & Reel** .....2000/reel

**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

# WIRE-WOUND RF CHIP INDUCTORS - 1008CD SERIES



- *Wirewound ceramic core construction*
- *High Q values and high self-esonant frequency*
- *Industry standard 1008 (2520) surface mount land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| PE-1008CD090JTT | 9,7 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 4100.0 | 0.09 | 1000 |
| PE-1008CD100JTT | 10 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 4100.0 | 0.09 | 1000 |
| PE-1008CD120JTT | 12 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 3300.0 | 0.09 | 1000 |
| PE-1008CD140JTT | 14,3 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 1850.0 | 0.10 | 1000 |
| PE-1008CD150JTT | 15 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 1850.0 | 0.10 | 1000 |
| PE-1008CD180JTT | 17, 8 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 350MHz | 2500.0 | 0.11 | 1000 |
| PE-1008CD220JTT | 22 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 55 @ 350MHz | 1800.0 | 0.12 | 1000 |
| PE-1008CD270JTT | 27 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 55 @ 350MHz | 1500.0 | 0.11 | 1000 |
| PE-1008CD330JTT | 33 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 1600.0 | 0.14 | 1000 |
| PE-1008CD390JTT | 39 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 1400.0 | 0.12 | 1000 |
| PE-1008CD470JTT | 47 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 65 @ 350MHz | 1200.0 | 0.08 | 1000 |
| PE-1008CD680JTT | 68 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 65 @ 350MHz | 1100.0 | 0.07 | 1000 |
| PE-1008CD820JTT | 82 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 950.0 | 0.14 | 1000 |
| PE-1008CD101JTT | 100 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 900.0 | 0.15 | 650 |
| PE-1008CD121JTT | 120 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 950.0 | 0.63 | 650 |
| PE-1008CD151JTT | 150 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 625.0 | 0.16 | 580 |
| PE-1008CD181JTT | 180 @ 25MHz | ±5% | ±5% (J), ±2% (G) | 45 @ 100MHz | 650.0 | 0.77 | 620 |
| PE-1008CD221JTT | 220 @ 25MHz | ±5% | ±5% (J), ±2% (G) | 45 @ 100MHz | 625.0 | 0.84 | 500 |
| PE-1008CD271JTT | 270 @ 25MHz | ±5% | ±5% (J), ±2% (G) | 45 @ 350MHz | 525.0 | 0.91 | 500 |
| PE-1008CD331JTT | 330 @ 25MHz | ±5% | ±2% (G) | 45 @ 100MHz | 500.0 | 1.05 | 450 |
| PE-1008CD391JTT | 390 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 475.0 | 1.12 | 470 |
| PE-1008CD471JTT | 470@ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 450.0 | 1.19 | 420 |
| PE-1008CD561JTT | 560 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 415.0 | 1.33 | 310 |
| PE-1008CD621JTT | 620 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 375.0 | 1.40 | 300 |
| PE-1008CD681JTT | 680 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 375.0 | 1.47 | 230 |
| PE-1008CD751JTT | 750 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 350.0 | 1.61 | 200 |

**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 1008CD SERIES

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) |
| **PE-1008CD821JTT** | 820 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 325.0 | 1.61 | 180 |
| **PE-1008CD911JTT** | 909,5 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 50MHz | 290.0 | 1.75 | 150 |
| **PE-1008CD102JTT** | 1000 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 50MHz | 260.0 | 1.90 | 120 |
| **PE-1008CD122JTT** | 1200 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 35 @ 50MHz | 250.0 | 2.00 | 310 |
| **PE-1008CD152JTT** | 1500 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 28 @ 50MHz | 200.0 | 2.30 | 330 |
| **PE-1008CD182JTT** | 1792.9 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 28 @ 50MHz | 160.0 | 2.60 | 300 |
| **PE-1008CD212JTT** | 2154.5 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 28 @ 50MHz | 80.0 | 2.80 | 280 |
| **PE-1008CD222JTT** | 2200 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 28 @ 50MHz | 80.0 | 2.80 | 280 |
| **PE-1008CD272JTT** | 2700 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 22 @ 50MHz | 90.0 | 3.20 | 290 |
| **PE-1008CD322JTT** | 3207.6 @ 7.9MHz | ±10% | | 22 @ 25MHz | 40.0 | 3.40 | 290 |
| **PE-1008CD332JTT** | 3300 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 22 @ 25MHz | 40.0 | 3.40 | 290 |
| **PE-1008CD392JTT** | 3900 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 20 @ 25MHz | 35.0 | 3.60 | 260 |
| **PE-1008CD452JTT** | 4526.2 @ 7.9MHz | ±5% | ±10% (K), ±2% (G) | 20 @ 25MHz | 25.0 | 4.00 | 260 |
| **PE-1008CD472JTT** | 4700 @ 7.9MHz | ±5% | ±10% (K) | 20 @ 25MHz | 25.0 | 4.00 | 260 |
| **PE-1008CD562JTT** | 5600 @ 7.9MHz | ±5% | ±10% (K) | 20 @ 25MHz | 60.0 | 5.40 | 240 |
| **PE-1008CD682JTT** | 6800 @ 7.9MHz | ±5% | | 18 @ 7.9MHz | 40.0 | 4.90 | 200 |
| **PE-1008CD822JTT** | 8200 @ 7.9MHz | ±5% | | 18 @ 7.9MHz | 25.0 | 6.00 | 160 |

***** For other inductance values in 1008 size, please refer to 1008CM (page 21-22) and 1008CQ (page 23) *****

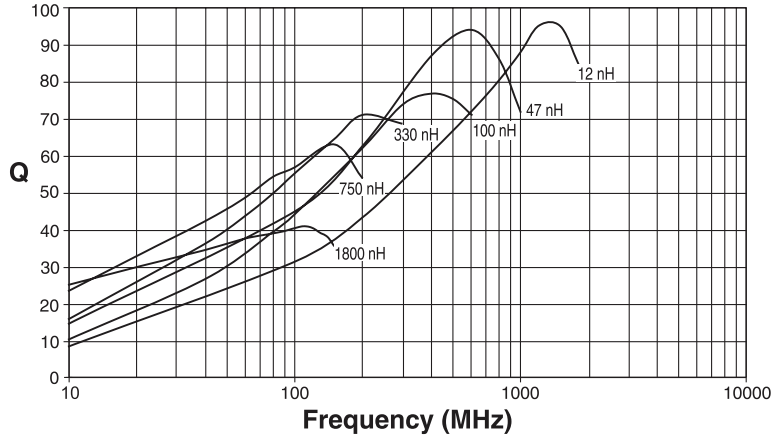
**Notes:**

1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15˚C maximum temperature rise.
6. Component Weight: 0.032 grams typical.
7. These components are 0.055" in height.

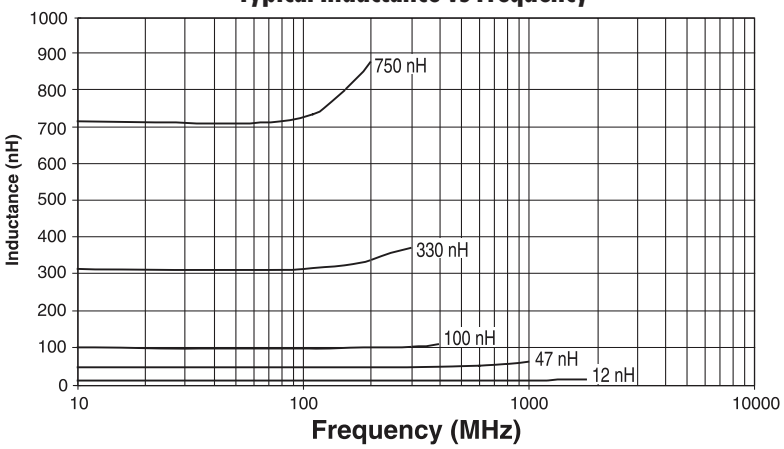
**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 1008CD SERIES

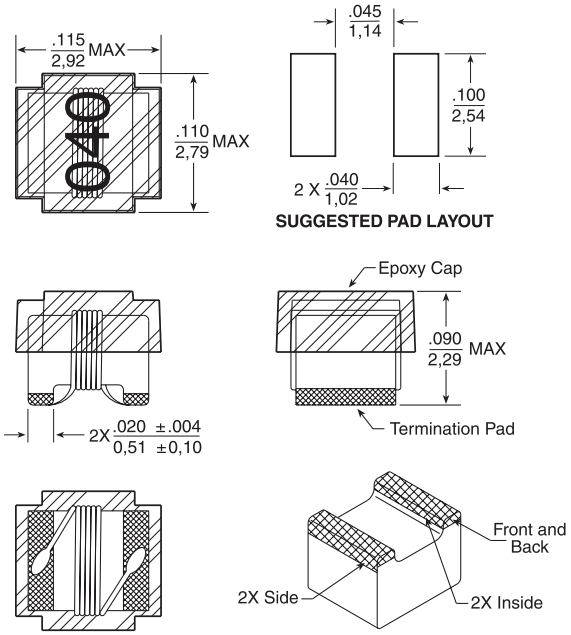
## Typical Q vs Frequency




## Typical Inductance vs Frequency




## Mechanical



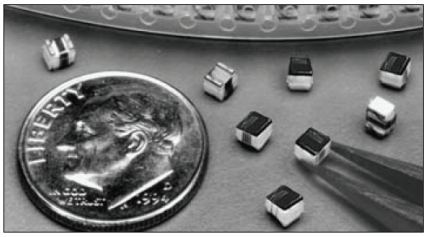

**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25



Pulse A YAGEO Company

# WIRE-WOUND RF CHIP INDUCTORS - 1008CM SERIES



- *Wirewound ceramic core construction*
- *High Q values and high self-esonant frequency*
- *Industry standard 1008 (2520) surface mount land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) | Ind |
| PE-1008CM040KTT | 4.7 @ 50MHz | ±10% | | 60 @ 1500MHz | 5500.0 | 0.09 | 1000 | 4.7 |
| PE-1008CM080JTT | 8.2 @ 50MHz | ±5% | ±10% (K) | 60 @ 1500MHz | 5500.0 | 0.09 | 1000 | 8.2 |
| PE-1008CM100JTT | 10 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 500MHz | 4100 | 0.09 | 1000 | 10.0 |
| PE-1008CM120JTT | 12 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 65 @ 500MHz | 4100 | 0.09 | 1000 | 12.0 |
| PE-1008CM150JTT | 15 @ 50MHz | ±5% | ±10% (K) | 55 @ 500MHz | 3300 | 0.09 | 1000 | 15.0 |
| PE-1008CM180JTT | 18 @ 50MHz | ±2% | ±10% (K) | 55 @ 500MHz | 1850 | 0.10 | 1000 | 18.0 |
| PE-1008CM220JTT | 22 @ 50MHz | ±2% | ±10% (K) | 55 @ 500MHz | 1850 | 0.10 | 1000 | 22.0 |
| PE-1008CM270JTT | 27 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 2500 | 0.11 | 1000 | 27.0 |
| PE-1008CM330JTT | 33 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 1800 | 0.18 | 800 | 33.0 |
| PE-1008CM390JTT | 39 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 70 @ 350MHz | 1400 | 0.12 | 1000 | 39.0 |
| PE-1008CM470JTT | 47 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 70 @ 350MHz | 1200 | 0.08 | 1000 | 47.0 |
| PE-1008CM560JTT | 56 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 1150 | 0.12 | 1000 | 56.0 |
| PE-1008CM680JTT | 68 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 70 @ 350MHz | 1100 | 0.07 | 1000 | 68.0 |
| PE-1008CM820JTT | 82 @ 50MHz | ±5% | ±10% (K), ±2% (G) | 65 @ 350MHz | 950 | 0.14 | 950 | 82.0 |
| PE-1008CM101JTT | 100 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 65 @ 350MHz | 900 | 0.15 | 650 | 100.0 |
| PE-1008CM121JTT | 120 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 60 @ 350MHz | 825 | 0.22 | 650 | 120.0 |
| PE-1008CM151JTT | 150 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 625 | 0.16 | 580 | 150.0 |
| PE-1008CM181JTT | 180 @ 25MHz | ±5% | ±2% (G) | 50 @ 100MHz | 650 | 0.25 | 600 | 180.0 |
| PE-1008CM201JTT | 200 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 630 | 0.24 | 580 | 200.0 |
| PE-1008CM221JTT | 220 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 625 | 0.28 | 500 | 220.0 |
| PE-1008CM271JTT | 270 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 525 | 0.50 | 500 | 270.0 |
| PE-1008CM331JTT | 330 @ 25MHz | ±5% | ±2% (G) | 50 @ 100MHz | 500 | 0.80 | 450 | 330.0 |
| PE-1008CM371JTT | 370 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 490 | 0.80 | 430 | 370.0 |
| PE-1008CM391JTT | 390 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 475 | 0.75 | 425 | 390.0 |
| PE-1008CM401GTT | 400 @ 25MHz | ±2% | | 50 @ 100MHz | 470 | 0.75 | 420 | 400.0 |
| PE-1008CM471JTT | 470 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 450 | 0.70 | 350 | 470.0 |
| PE-1008CM561JTT | 560 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 50 @ 100MHz | 425 | 0.80 | 350 | 560.0 |

**(Continued on next page)**

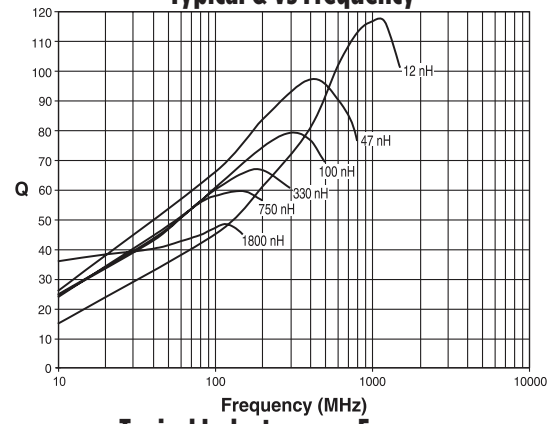
# WIRE-WOUND RF CHIP INDUCTORS - 1008CM SERIES

| Electrical Specifications @ 25°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF[3] (MHz MIN) | RDC[4] (Ω MAX) | IDC[5] (mA MAX) | INC |
| PE-1008CM621JTT | 620 @ 25MHz | ±5% | ±10% (K) | 45 @ 100MHz | 375.0 | 1.90 | 200 | 620.0 |
| PE-1008CM681JTT | 680 @ 25MHz | ±5% | ±2% (G) | 45 @ 100MHz | 375.0 | 2.30 | 200 | 680.0 |
| PE-1008CM751JTT | 750 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 45 @ 100MHz | 350.0 | 1.60 | 200 | 750.0 |
| PE-1008CM821JTT | 820 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 100MHz | 325.0 | 3.30 | 200 | 820.0 |
| PE-1008CM911JTT | 910 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 50MHz | 300.0 | 2.10 | 200 | 910.0 |
| PE-1008CM102JTT | 1000 @ 25MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 50MHz | 300.0 | 1.80 | 200 | 1000.0 |
| PE-1008CM122JTT | 1200 @ 10MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 50MHz | 250.0 | 3.00 | 200 | 1200.0 |
| PE-1008CM152JTT | 1500 @ 10MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 50MHz | 200.0 | 4.00 | 150 | 1500.0 |
| PE-1008CM182JTT | 1800 @ 10MHz | ±5% | ±10% (K), ±2% (G) | 40 @ 50MHz | 150.0 | 5.09 | 150 | 1800.0 |
| PE-1008CM222JTT | 2200 @ 10MHz | ±5% | ±10% (K), ±2% (G) | 30 @ 25MHz | 80.0 | 5.85 | 150 | 2200.0 |
| PE-1008CM272JTT | 2700 @ 10MHz | ±10% | | 30 @ 25MHz | 90.0 | 7.70 | 150 | 2700.0 |
| PE-1008CM332GTT | 3300 @ 10MHz | ±2% | ±10% (K) | 25 @ 15MHz | 40.0 | 7.80 | 150 | 3300.0 |
| PE-1008CM472JTT | 4700 @ 10MHz | ±5% | ±5% (J), ±2% (G) | 16 @ 15MHz | 25.0 | 6.00 | 150 | 4700.0 |

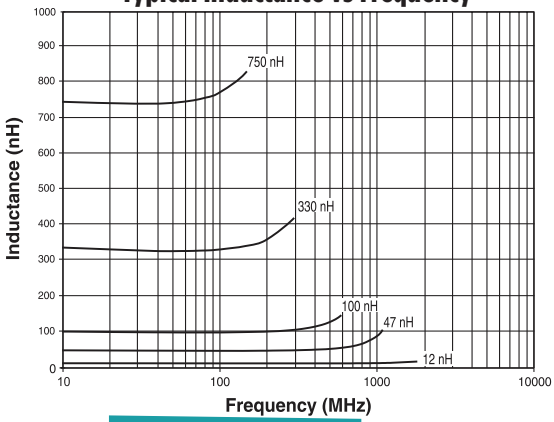
**Notes:**

1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15°C maximum temperature rise.
6. Component Weight: 0.032 grams typical.

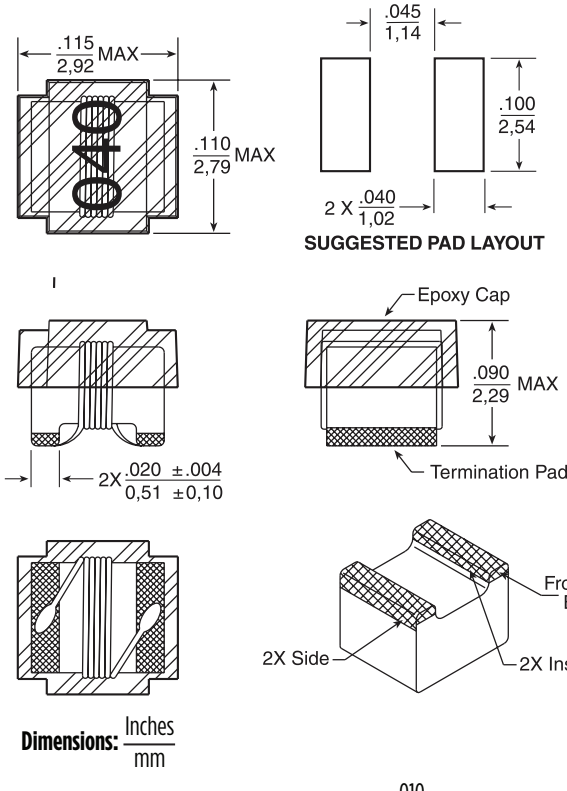
## Typical Q vs Frequency




## Typical Inductance vs Frequency




## Mechanical



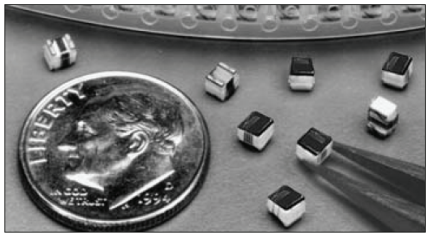

**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25



Pulse A YAGEO Company

# WIRE-WOUND RF CHIP INDUCTORS - 1008CQ SERIES



- *Wirewound ceramic core construction*
- *High Q values and Idc values*
- *High self-esonant frequency*
- *Industry standard 1008 (2520) surface mount land pattern*

See page 3 for Competition Cross Reference

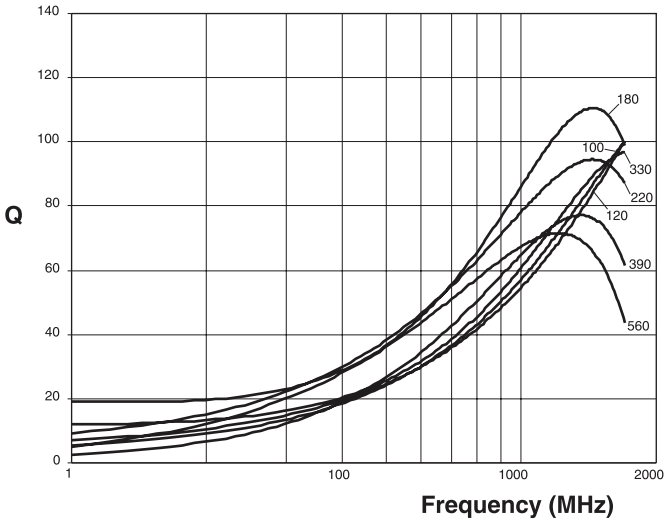
| Electrical Specifications @ 25°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Part Number** | **Inductance**[1] (nH) | **Standard Tolerance** | **Optional Tolerance** | **Q**[2] (MIN) | **SRF Min**[3] (MHz MIN) | **RDC**[4] (Ω MAX) | **IDC**[5] (mA MAX) | **Ind** |
| **PE-1008CQ4N1JTT** | 4.1 @ 50MHz | ±5% | ±10% (K) | 75 @ 1500MHz | 6000.0 | | | 4.1 |
| **PE-1008CQ100JTT** | 10 @ 50MHz | ±5% | ±10% (K) | 60 @ 500MHz | 3600.0 | | | 10.0 |
| **PE-1008CQ180JTT** | 18 @ 50MHz | ±5% | ±10% (K) | 62 @ 350MHz | 2700.0 | | | 18.0 |
| **PE-1008CQ390JTT** | 39 @ 50MHz | ±5% | | 75 @ 350MHz | 1300.0 | | | 39.0 |
| **PE-1008CQ470KTT** | 47 @ 50MHz | ±10% | | 75 @ 350MHz | 1450.0 | | | 47.0 |
| **PE-1008CQ820JTT** | 82 @ 50MHz | ±5% | ±10% (K) | 80 @ 350MHz | 1060.0 | | | 82.0 |
| **PE-1008CQ101JTT** | 100 @ 50MHz | ±5% | ±10% (K) | 62 @ 350MHz | 820.0 | | | 100.0 |
| **PE-1008CQ151KTT** | 150 @ 50MHz | ±10% | | 60 @ 350MHz | 750.0 | | | 150.0 |
| **PE-1008CQ181JTT** | 180 @ 50MHz | ±5% | ±10% (K) | 55 @ 350MHz | 800.0 | | | 180.0 |
| **PE-1008CQ221JTT** | 220 @ 50MHz | ±5% | ±10% (K) | 56 @ 350MHz | 680.0 | | | 220.0 |
| **PE-1008CQ271JTT** | 270 @ 50MHz | ±5% | ±10% (K) | 45 @ 350MHz | 600.0 | | | 270.0 |
| **PE-1008CQ331JTT** | 330 @ 50MHz | ±5% | ±10% (K) | 52 @ 100MHz | 550.0 | | | 330.0 |
| **PE-1008CQ391JTT** | 390 @ 50MHz | ±5% | ±10% (K) | 35 @ 350MHz | 500.0 | | | 390.0 |

**Notes:**

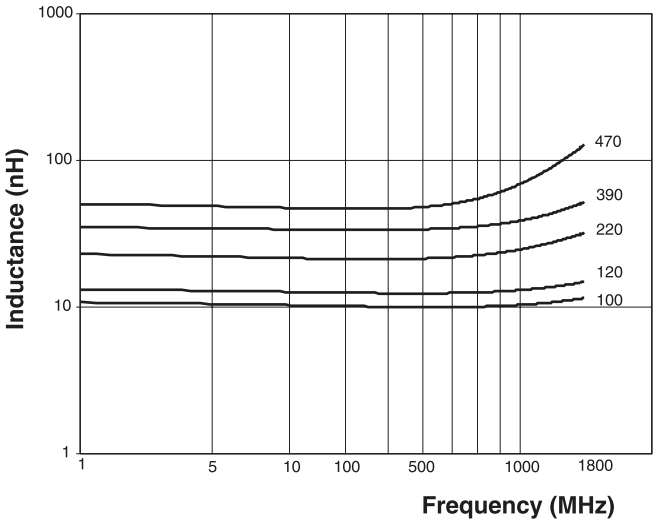
1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15°C maximum temperature rise.
6. Component Weight: 0.032 grams typical.

# WIRE-WOUND RF CHIP INDUCTORS - 1008CQ SERIES

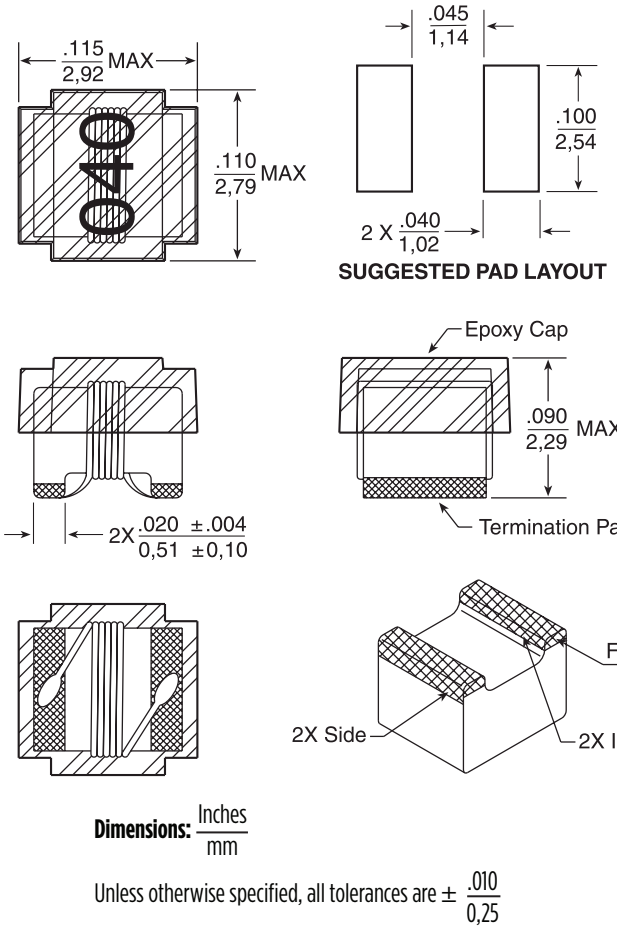
## Typical Q vs Frequency




## Typical Inductance vs Frequency



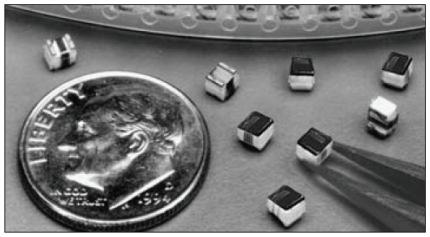

## Mechanical




**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

# WIRE-WOUND RF CHIP INDUCTORS - 1206CD SERIES



- *Wirewound ceramic core construction*
- *High Q values and self-esonant frequency*
- *Industry standard 1206 (3216) SMT land pattern*

See page 3 for Competition Cross Reference

| Electrical Specifications @ 25°C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part Number | Inductance[1] (nH) | Standard Tolerance | Optional Tolerance | Q[2] (MIN) | SRF Min[3] (MHz MIN) | Rdc[4] (Ω MAX) | Idc[5] (mA MAX) |
| PE-1206CD030KTT | 3.3 @ 100MHz | ±10% (K) | ±5% (J) | 30 @ 300MHz | 6200 | 0.05 | 1000 |
| PE-1206CD060KTT | 6.8 @ 100MHz | ±10% (K) | ±5% (J) | 30 @ 300MHz | 5500 | 0.07 | 1000 |
| PE-1206CD100KTT | 10 @ 100MHz | ±10% (K) | ±5% (J) | 40 @ 300MHz | 4000 | 0.08 | 1000 |
| PE-1206CD120KTT | 12 @ 100MHz | ±10% (K) | ±5% (J) | 40 @ 300MHz | 3200 | 0.08 | 1000 |
| PE-1206CD150KTT | 15 @ 100MHz | ±10% (K) | ±5% (J) | 40 @ 300MHz | 3200 | 0.10 | 1000 |
| PE-1206CD180KTT | 18 @ 100MHz | ±10% (K) | ±5% (J) | 50 @ 300MHz | 2800 | 0.10 | 1000 |
| PE-1206CD220KTT | 22 @ 100MHz | ±10% (K) | ±5% (J) | 50 @ 300MHz | 2200 | 0.10 | 1000 |
| PE-1206CD270KTT | 27 @ 100MHz | ±10% (K) | ±5% (J) | 50 @ 300MHz | 1800 | 0.11 | 1000 |
| PE-1206CD330KTT | 33 @ 100MHz | ±10% (K) | ±5% (J) | 55 @ 300MHz | 1800 | 0.11 | 1000 |
| PE-1206CD390KTT | 39 @ 100MHz | ±5% (J) | | 55 @ 300MHz | 1800 | 0.12 | 1000 |
| PE-1206CD470KTT | 47 @ 100MHz | ±10% (K) | ±5% (J) | 55 @ 300MHz | 1500 | 0.13 | 1000 |
| PE-1206CD820KTT | 82 @ 100MHz | ±10% (K) | ±5% (J) | 55 @ 300MHz | 1200 | 0.21 | 900 |
| PE-1206CD101KTT | 100 @ 100MHz | ±10% (K) | ±5% (J) | 55 @ 300MHz | 1100 | 0.26 | 850 |
| PE-1206CD121KTT | 120 @ 100MHz | ±10% (K) | ±5% (J) | 60 @ 350MHz | 1100 | 0.26 | 800 |
| PE-1206CD151KTT | 150 @ 100MHz | ±10% (K) | ±5% (J) | 60 @ 350MHz | 950 | 0.31 | 750 |
| PE-1206CD181KTT | 180 @ 50MHz | ±10% (K) | ±5% (J) | 60 @ 100MHz | 900 | 0.43 | 700 |
| PE-1206CD221KTT | 220 @ 50MHz | ±10% (K) | ±5% (J) | 60 @ 350MHz | 760 | 0.50 | 670 |
| PE-1206CD271KTT | 270 @ 50MHz | ±10% (K) | ±5% (J) | 55 @ 300MHz | 730 | 0.56 | 630 |
| PE-1206CD331KTT | 330 @ 50MHz | ±10% (K) | | 45 @ 150MHz | 650 | 0.62 | 590 |
| PE-1206CD391KTT | 390 @ 50MHz | ±10% (K) | ±5% (J) | 45 @ 150MHz | 600 | 0.75 | 530 |
| PE-1206CD471KTT | 470 @ 50MHz | ±10% (K) | ±5% (J) | 45 @ 150MHz | 550 | 1.30 | 490 |
| PE-1206CD561KTT | 560 @ 35MHz | ±10% (K) | ±5% (J) | 45 @ 150MHz | 470 | 1.34 | 460 |
| PE-1206CD621KTT | 629 @ 35MHz | ±10% (K) | ±5% (J), ±2% (G) | 45 @ 150MHz | 470 | | |
| PE-1206CD681KTT | 680 @ 35MHz | ±5% (J) | | 45 @ 150MHz | 450 | 1.58 | 430 |
| PE-1206CD821KTT | 820 @ 35MHz | ±5% (J) | | 45 @ 150MHz | 420 | 1.82 | 400 |
| PE-1206CD911KTT | 910 @ 35MHz | ±5% (J) | | 45 @ 150MHz | 410 | 2.95 | 400 |
| PE-1206CD102KTT | 1000 @ 35MHz | ±5% (J) | | 45 @ 150MHz | 400 | 2.80 | 320 |
| PE-1206CD122KTT | 1200 @ 35MHz | ±5% (J) | | 45 @ 150MHz | 380 | 3.20 | 300 |

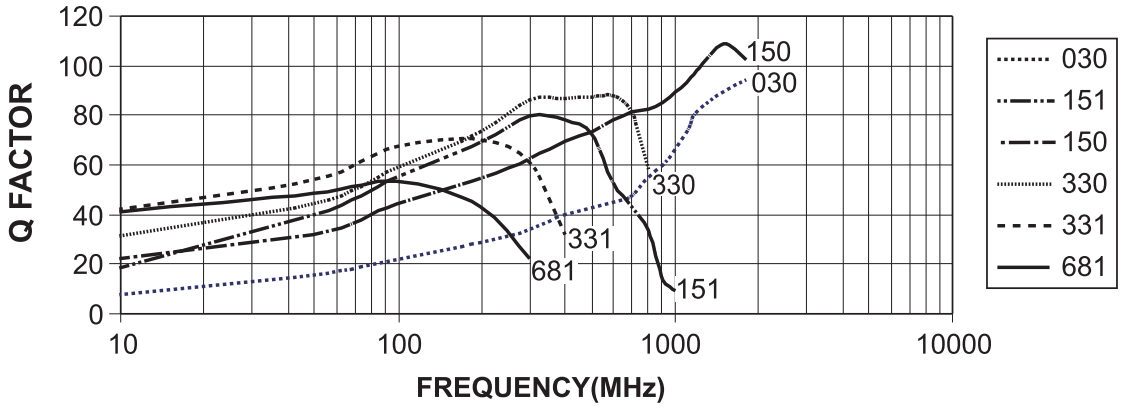
**(Continued on next page)**

# WIRE-WOUND RF CHIP INDUCTORS - 1206CD SERIES

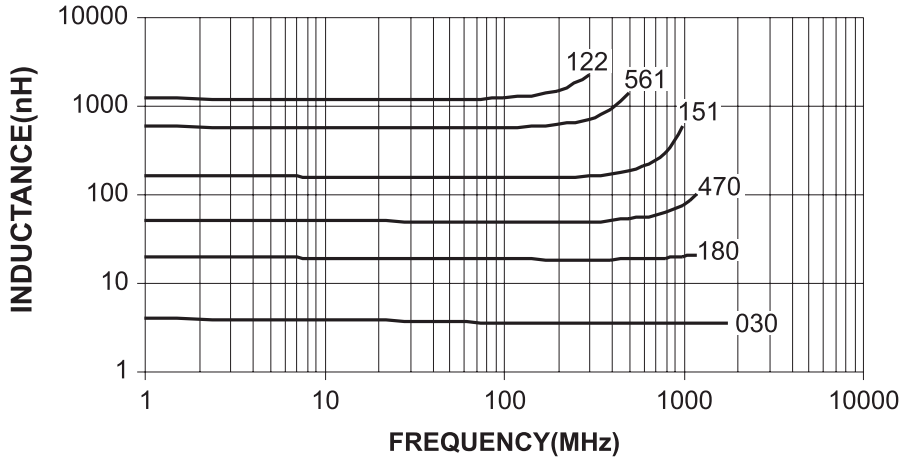
**Notes:**

1. Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
2. Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
3. SRF measured using a HP8753C Network Analyzer.
4. RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohmeter.
5. Based on a 15˚C maximum temperature rise.
6. Component Weight: 0.035 grams typical.
7. These components are 0.060" in height.

## Typical Q vs Frequency




## Typical Inductance vs Frequency

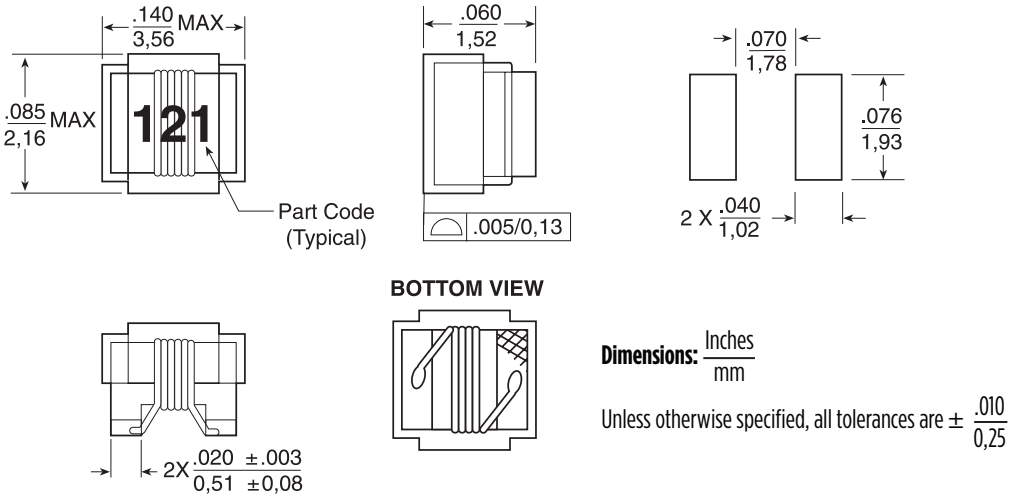





Pulse A YAGEO Company

# WIRE-WOUND RF CHIP INDUCTORS - 1206CD SERIES

## Mechanical




**Dimensions:** Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25


For More Information:

**Americas -** prodinfonetworkamericas@pulseelectronics.com | **Europe -** comms-Apps-Europe@pulseelectronics.com | **Asia -** prodinfonetworkapac@pulseelectronics.com



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