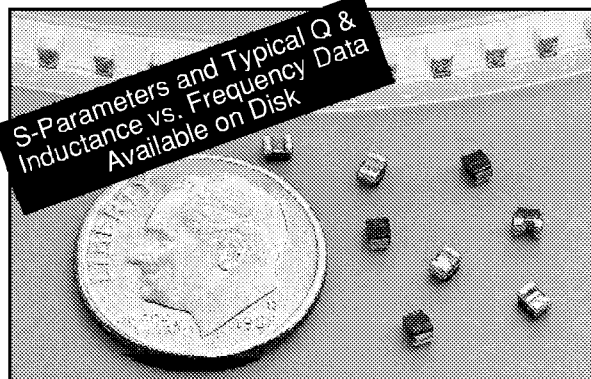


# 0805CX MINIATURE RF CHIP INDUCTORS

Designed for Wireless Products

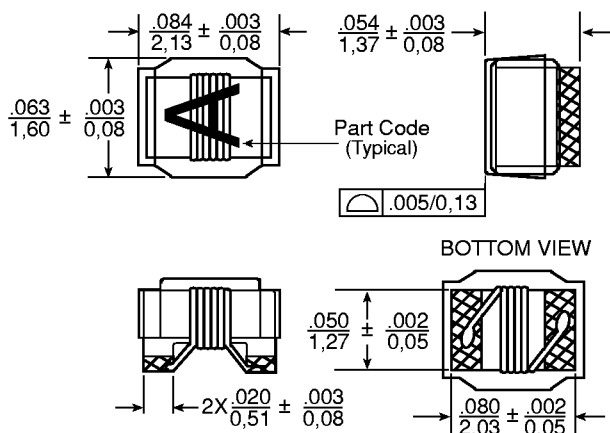


- Wirewound ceramic core construction
- High Q values and self-resonant frequency
- Gold terminations
- Industry standard 0805 (2012) surface mount land pattern

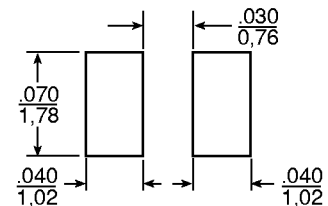
### Electrical Specifications @ 25°C

| Part Number     | Inductance <sup>1</sup><br>(nH) | Standard Tolerance | Optional Tolerance | Q <sup>2</sup><br>(MIN) | SRF <sup>3</sup><br>(MHz MIN) | R <sub>DC</sub> <sup>4</sup><br>(Ω MAX) | I <sub>DC</sub> <sup>5</sup><br>(mA MAX) | Part Code |
|-----------------|---------------------------------|--------------------|--------------------|-------------------------|-------------------------------|---|--|-----------|
| PE-0805CX030KTG | 3.3 @ 250 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 37 @ 1500 MHz           | 5000                          | 0.060                                   | 600                                      | A         |
| PE-0805CX060KTG | 6.8 @ 250 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 46 @ 1000 MHz           | 5000                          | 0.150                                   | 600                                      | B         |
| PE-0805CX080KTG | 8.2 @ 250 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 47 @ 1000 MHz           | 3900                          | 0.130                                   | 600                                      | C         |
| PE-0805CX120KTG | 12 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 50 @ 500 MHz            | 2900                          | 0.130                                   | 600                                      | D         |
| PE-0805CX150KTG | 15 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 50 @ 500 MHz            | 2700                          | 0.150                                   | 600                                      | E         |
| PE-0805CX180KTG | 18 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 50 @ 500 MHz            | 2600                          | 0.130                                   | 600                                      | F         |
| PE-0805CX220KTG | 22 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 55 @ 500 MHz            | 2200                          | 0.130                                   | 500                                      | G         |
| PE-0805CX270KTG | 27 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 55 @ 500 MHz            | 2000                          | 0.230                                   | 500                                      | H         |
| PE-0805CX330KTG | 33 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 58 @ 500 MHz            | 1800                          | 0.180                                   | 500                                      | J         |
| PE-0805CX390KTG | 39 @ 250 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 60 @ 500 MHz            | 1600                          | 0.230                                   | 500                                      | K         |
| PE-0805CX470KTG | 47 @ 200 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 60 @ 500 MHz            | 1650                          | 0.250                                   | 500                                      | L         |
| PE-0805CX560KTG | 56 @ 200 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 60 @ 500 MHz            | 1300                          | 0.160                                   | 500                                      | M         |
| PE-0805CX680KTG | 68 @ 200 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 60 @ 500 MHz            | 1350                          | 0.180                                   | 500                                      | N         |
| PE-0805CX820KTG | 82 @ 150 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 60 @ 500 MHz            | 1300                          | 0.360                                   | 400                                      | O         |
| PE-0805CX101KTG | 100 @ 150 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 55 @ 500 MHz            | 1100                          | 0.360                                   | 400                                      | P         |
| PE-0805CX121KTG | 120 @ 150 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 45 @ 250 MHz            | 1100                          | 0.560                                   | 350                                      | R         |
| PE-0805CX151KTG | 150 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 50 @ 250 MHz            | 900                           | 0.560                                   | 350                                      | S         |
| PE-0805CX181KTG | 180 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 50 @ 250 MHz            | 875                           | 0.690                                   | 300                                      | T         |
| PE-0805CX221KTG | 220 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 45 @ 250 MHz            | 800                           | 0.850                                   | 300                                      | U         |
| PE-0805CX271KTG | 270 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 40 @ 100 MHz            | 800                           | 0.900                                   | 300                                      | X         |
| PE-0805CX331KTG | 330 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 40 @ 100 MHz            | 775                           | 1.300                                   | 300                                      | Y         |
| PE-0805CX391KTG | 390 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 40 @ 100 MHz            | 725                           | 1.700                                   | 300                                      | A1        |
| PE-0805CX471KTG | 470 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 38 @ 100 MHz            | 600                           | 3.250                                   | 240                                      | B1        |
| PE-0805CX561KTG | 560 @ 100 MHz                   | ± 10% (K)          | ±5%, ±2%, ±1%      | 40 @ 100 MHz            | 600                           | 3.100                                   | 240                                      | C1        |
| PE-0805CX681KTG | 680 @ 50 MHz                    | ± 10% (K)          | ±5%, ±2%, ±1%      | 32 @ 50 MHz             | 550                           | 3.500                                   | 240                                      | D1        |

### Mechanical



### Suggested SMD Pad Layout



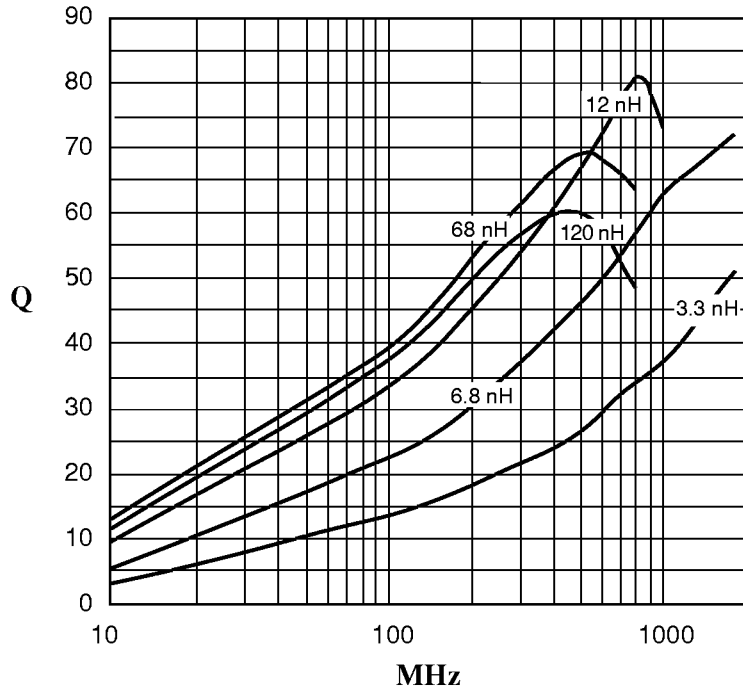
Weight . . . . . 0.012 grams  
Tape & Reel . . . . . 2000/reel  
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified  
all tolerances are ±  $\frac{.010}{0.25}$

# 0805CX MINIATURE RF CHIP INDUCTORS

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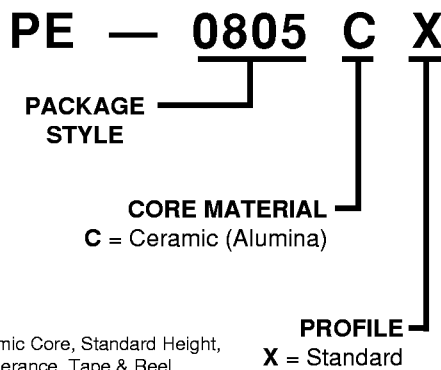
## Typical Q vs. Frequency



### NOTES:

1. Inductance measured using a HP4191A RF Impedance Analyzer.
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 Ohmmeter.
5. Based on a 15°C maximum temperature rise.
6. Sample Kit Part Number: PE-0805CXKIT-G.
7. S-parameters and Q & Inductance vs. Frequency Information available on 3.5" disk. Please request **AN944-1**.

## Part Number Legend



**121** **K** **T** **G**

**INDUCTANCE (nH)**  
1st 2 digits are significant.  
3rd digit is multiplier.

**TOLERANCE**  
G = ±2%  
J = ±5%  
K = ±10%  
M = ±20%

**TERMINATION**  
G = Tungsten/Nickel/Gold Flash

**PACKAGING**  
T = Tape & Reel (2000 Pieces/  
7" reel/8 mm wide tape/4 mm pitch)  
B = Bulk/Partial Reel

**EXAMPLE:** 0805 Size, Ceramic Core, Standard Height, 120 nH, 10% Tolerance, Tape & Reel, Gold Termination

## For More Information :

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### Distributor

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