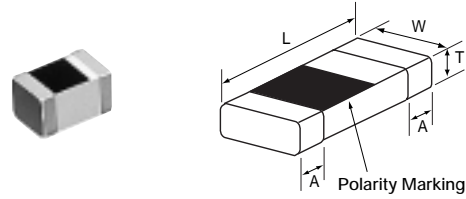


The PTL1608-F is a photolithographically etched single layer ceramic chip inductor in a standard 0603 package. Toko's proprietary design provides high SRF, excellent Q, and superior temperature stability. This highly stable inductor family is specifically designed for critical tolerance inductor needs. More economical than thin film or screened wirewounds, the PTL1608-F is an ideal solution for tight tolerance requirements, such as VCO circuits and GaAs matching.



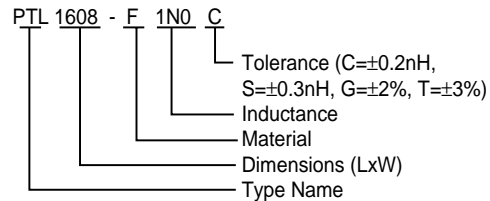
Unit: mm

| Type    | L (mm)  | W (mm)  | T (mm)  | A (mm)  |
|---------|---------|---------|---------|---------|
| PTL1608 | 1.6±0.1 | 0.8±0.1 | 0.5±0.1 | 0.3±0.2 |

## Features

- 2% Inductance Tolerance
- Inductance Range: 1.0-18nH
- Temperature Coefficient: +100ppm/°C
- Temperature Range: -40°C to +100°C
- SRF tolerance within 10%
- Miniature size: 0603 footprint (1.6mm x 0.8mm)
- Q: 50 Typical (at 1800MHz)
- S-parameter data available upon request
- Packaged on tape and reel in 6,000 piece quantity

## Part Numbering



## STANDARD PARTS SELECTION GUIDE

### TYPE PTL1608-F

| TOKO<br>Part Number | Inductance (nH)<br>at 100MHz |             | Inductance (nH)<br>at 800MHz |           | Q (Typ.) at --- MHz |     |      | SRF<br>(MHz) | RDC (Ω)<br>(Max.) | IDC<br>mA<br>(Max.) |
|---------------------|------------------------------|-------------|------------------------------|-----------|---------------------|-----|------|--------------|-------------------|---------------------|
|                     | L (nH)                       | Tolerance * | L (nH)                       | Tolerance | 100                 | 800 | 1800 |              |                   |                     |
| PTL1608-F1N0_*      | 1.0                          | C, S        | 1.0                          | ±0.3nH    | 11                  | 37  | 57   | 12500±10%    | 0.10              | 1000                |
| PTL1608-F1N2_*      | 1.2                          | C, S        | 1.2                          | ±0.3nH    | 10                  | 35  | 56   | 11500±10%    | 0.12              | 900                 |
| PTL1608-F1N5_*      | 1.5                          | C, S        | 1.4                          | ±0.3nH    | 9                   | 33  | 52   | 10000±10%    | 0.15              | 800                 |
| PTL1608-F1N8_*      | 1.8                          | C, S        | 1.7                          | ±0.3nH    | 10                  | 33  | 50   | 9250±10%     | 0.15              | 700                 |
| PTL1608-F2N2_*      | 2.2                          | C, S        | 2.1                          | ±0.3nH    | 9                   | 36  | 54   | 8400±10%     | 0.22              | 650                 |
| PTL1608-F2N7_*      | 2.7                          | C, S        | 2.6                          | ±0.3nH    | 10                  | 36  | 53   | 7400±10%     | 0.25              | 600                 |
| PTL1608-F3N3_*      | 3.3                          | C, S        | 3.2                          | ±0.3nH    | 9                   | 33  | 48   | 6600±10%     | 0.35              | 500                 |
| PTL1608-F3N9_*      | 3.9                          | C, S        | 3.8                          | ±0.3nH    | 9                   | 35  | 50   | 5850±10%     | 0.40              | 500                 |
| PTL1608-F4N7_*      | 4.7                          | C, S        | 4.6                          | ±0.3nH    | 10                  | 35  | 51   | 5200±10%     | 0.45              | 450                 |
| PTL1608-F5N6_*      | 5.6                          | C, S        | 5.5                          | ±0.3nH    | 10                  | 35  | 49   | 4700±10%     | 0.55              | 400                 |
| PTL1608-F6N8_*      | 6.8                          | C, S        | 6.7                          | ±0.4nH    | 9                   | 32  | 44   | 4200±10%     | 0.75              | 350                 |
| PTL1608-F8N2_*      | 8.2                          | C, S        | 8.2                          | ±0.4nH    | 9                   | 33  | 43   | 3750±10%     | 1.0               | 300                 |
| PTL1608-F10N_*      | 10                           | G, T        | 10.1                         | ±4%       | 9                   | 33  | 39   | 3250±10%     | 1.2               | 250                 |
| PTL1608-F12N_*      | 12                           | G, T        | 12.1                         | ±4%       | 8                   | 31  | 38   | 3100±10%     | 1.6               | 200                 |
| PTL1608-F15N_*      | 15                           | G, T        | 15.6                         | ±4%       | 8                   | 31  | 32   | 2650±10%     | 2.0               | 200                 |
| PTL1608-F18N_*      | 18                           | G, T        | 18.8                         | ±4%       | 8                   | 29  | 30   | 2400±10%     | 2.5               | 180                 |

\* Add tolerance to part number: C=±0.2nH, S=±0.3nH, G = ±2%, T=±3%

Testing Conditions: (1) L,Q: HP4291A (Test fixture HP16193A) (2) SRF: HP8719D (3) RDC: HP4338B