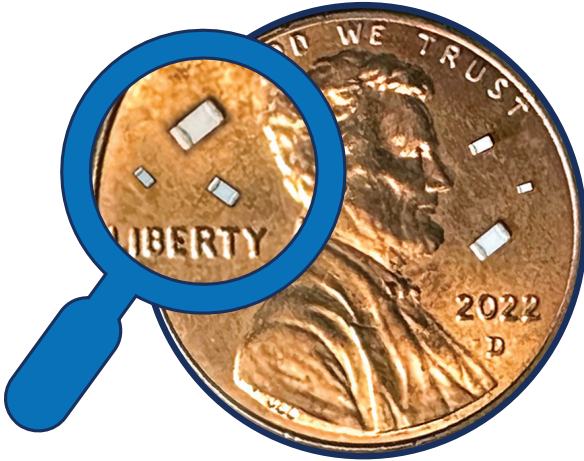




RF Inductors Ceramic

Applications & Product Range



High frequency multi-layer chip inductors feature a monolithic body made of low loss ceramic and high conductivity metal electrodes to achieve optimal high frequency performance.

These RF chip inductors are compact in size and feature lead-free tin plated nickel barrier terminations and tape and reel packaging which makes them ideal for small size/high volume wireless applications.

Applications:

- CELL/PCS Modules
- Wireless LAN
- Broadband Components
- RFID
- RF Transceivers
- RoHS Compliant (Standard, "V" Code)
- Sn/Pb Terminations Optional ("T" Code)

Product Range Summary

| EIA SIZE (mm) | RANGE | Q FACTOR (Min.) | SRF (Typ.) | TEMPERATURE |
|---------------|--------------|-----------------|------------------|-----------------|
| 0201 (0603) | 0.6 - 39 nH | 4 (100 MHz) | >21 GHz (1.0 nH) | -55°C to +100°C |
| 0402 (1005) | 1.0 - 120 nH | 8 (100 MHz) | >21 GHz (1.0 nH) | -55°C to +100°C |
| 0603 (1608) | 1.0 - 220 nH | 12 (100 MHz) | >23 GHz (1.0 nH) | -55°C to +100°C |



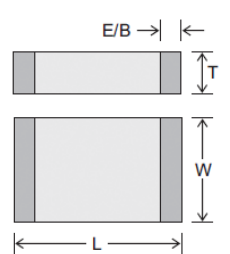
RF Inductors Ceramic

Mechanical Characteristics & How to Order

Types of Markings



Mechanical Characteristics

| Size | 0201 (0603) | | 0402 (1005) | | 0603 (1608) | | Characteristics |
|-----------|--------------|---------------|--------------|--------------|--------------|--------------|---|
| | Inches | mm | Inches | mm | Inches | mm | |
| Length | .024 ± .001" | (0.6 ± .003) | .039 ± .004" | (1.00 ± .10) | .063 ± .006" | (1.60 ± .15) |  |
| Width | .012 ± .001" | (0.3 ± .003) | .020 ± .004" | (0.50 ± .10) | .031 ± .008" | (0.80 ± .15) | |
| Thickness | .012 ± .001" | (0.3 ± .003) | .020 ± .004" | (0.50 ± .10) | .031 ± .008" | (0.80 ± .15) | |
| End Band | .006 ± .002" | (0.15 ± 0.05) | .009 ± .004" | (0.23 ± .10) | .012 ± .004" | (0.30 ± .20) | |

HOW TO ORDER

| LR | C | 0402 | C | C | 1N0 | GV | 001 | B |
|-----------------------|-------------|----------------------|---------------------------------|-------------------------------|-----------|-----------------------------------|----------------------------|---|
| Subfamily | Ceramic | Size | Type | Tolerance | Value | Termination | Special Code | Packaging |
| LR = Ceramic Inductor | C = Ceramic | 0201 0402 0603 | B = Half-marked (all 0201) | C = ± 0.2 nH ≤ 1.0 nH | See Table | GV = Ni/Sn (RoHS) NT = Ni/SnPb | 001 = Default Catalog Item | B = Bulk (all sizes) T = 7" Reel Paper Tape R = 13" Reel Paper Tape W = Waffle Pack (0603) |
| | | | | S = ± 0.3 nH 1.0 to 5.6 nH | | | | |
| | | | C = 0402 & 0603 (see "Marking") | J = ± 5% 6.8 nH and above | | | | |
| | | | | K = ± 10% 3.3 nH and above | | | | |

Example: LRC0402CC1N0GV001B is Ceramic Inductor, 0402, 1.0nH±0.2nH, 300mA, Ni/Sn (RoHS), Orientation Mark Full Marking, Bulk



RF Inductors Ceramic

Inductance Range / Electrical Characteristics

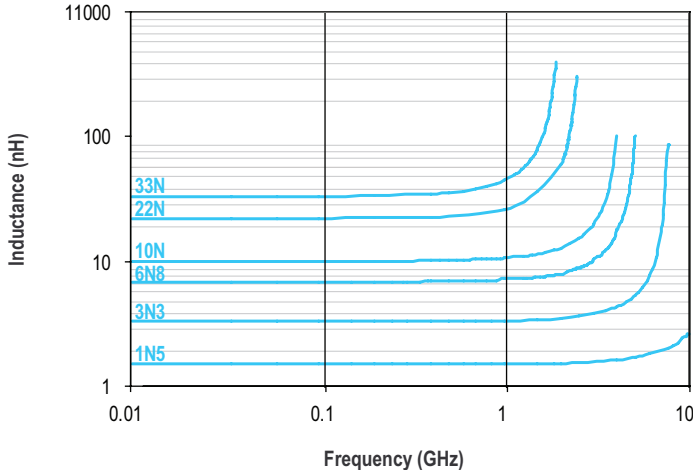
| Inductor Value | | EIA Size | 0201 | 0402 | 0603 | |
|----------------|------|-----------|--------|-----------------|-----------------|--------|
| Inductance | | Tolerance | | | | |
| nH | Code | | | | | |
| 0.6 | 0N6 | C, S | 300 mA | | | |
| 0.7 | 0N7 | | 300 mA | | | |
| 0.8 | 0N8 | | 300 mA | | | |
| 0.9 | 0N9 | | 300 mA | | | |
| 1.0 | 1N0 | | 300 mA | 300 mA | 300 mA (S only) | |
| 1.2 | 1N2 | | 300 mA | 300 mA (S only) | 300 mA (S only) | |
| 1.3 | 1N3 | | 300 mA | | | |
| 1.5 | 1N5 | | 300 mA | 300 mA (S only) | 300 mA (S only) | |
| 1.8 | 1N8 | | 300 mA | 300 mA (S only) | 300 mA (S only) | |
| 1.9 | 1N9 | | 300 mA | 300 mA (S only) | | |
| 2.0 | 2N0 | | 300 mA | 300 mA (S only) | | |
| 2.2 | 2N2 | | 300 mA | 300 mA (S only) | 300 mA (S only) | |
| 2.3 | 2N3 | | 300 mA | | | |
| 2.4 | 2N4 | | 300 mA | 300 mA (S only) | | |
| 2.5 | 2N5 | | 300 mA | | | |
| 2.7 | 2N7 | | 300 mA | 300 mA (S only) | 300 mA (S only) | |
| 3.0 | 3N0 | | 300 mA | 300 mA (S only) | | |
| 3.3 | 3N3 | | K, S | 300 mA | 300 mA | 300 mA |
| 3.6 | 3N6 | | | 300 mA | 300 mA | |
| 3.7 | 3N7 | | | 300 mA | | |
| 3.9 | 3N9 | 300 mA | | 300 mA | 300 mA | |
| 4.3 | 4N3 | | | 300 mA | | |
| 4.7 | 4N7 | 300 mA | | 300 mA | 300 mA | |
| 5.1 | 5N1 | 300 mA | | 300 mA | | |
| 5.6 | 5N6 | 300 mA | | 300 mA | 300 mA | |
| 6.2 | 6N2 | | | 300 mA | | |
| 6.8 | 6N8 | J, K | | 250 mA | 250 mA | 300 mA |
| 7.5 | 7N5 | | | 250 mA | | |
| 8.2 | 8N2 | | 250 mA | 250 mA | 300 mA | |
| 10 | 10N | | | 250 mA | 300 mA | |
| 12 | 12N | | 250 mA | 250 mA | 300 mA | |
| 13 | 13N | | 250 mA | 250 mA | | |
| 15 | 15N | | 250 mA | 250 mA | 300 mA | |
| 18 | 18N | | 200 mA | 200 mA | 300 mA | |
| 22 | 22N | | 200 mA | 200 mA | 300 mA | |
| 23 | 23N | | | 200 mA | | |
| 27 | 27N | | 200 mA | 200 mA | 300 mA | |
| 33 | 33N | | 200 mA | 200 mA | 300 mA | |
| 39 | 39N | | 200 mA | 150 mA | 300 mA | |
| 43 | 43N | | | 150 mA | | |
| 47 | 47N | | | 150 mA | 300 mA | |
| 56 | 56N | | | 150 mA | 300 mA | |
| 68 | 68N | | | 100 mA | 300 mA | |
| 82 | 82N | | | 100 mA | 300 mA | |
| 100 | R10 | | | 100 mA | 300 mA | |
| 120 | R12 | | | 100 mA | 300 mA | |
| 150 | R15 | | | 300 mA | | |
| 180 | R18 | | | 300 mA | | |
| 220 | R22 | | | 300 mA | | |
| 270 | R27 | | | | | |
| 330 | R33 | | | | | |
| 390 | R39 | | | | | |
| 420 | R42 | | | | | |
| 560 | R56 | | | | | |
| 680 | R68 | | | | | |



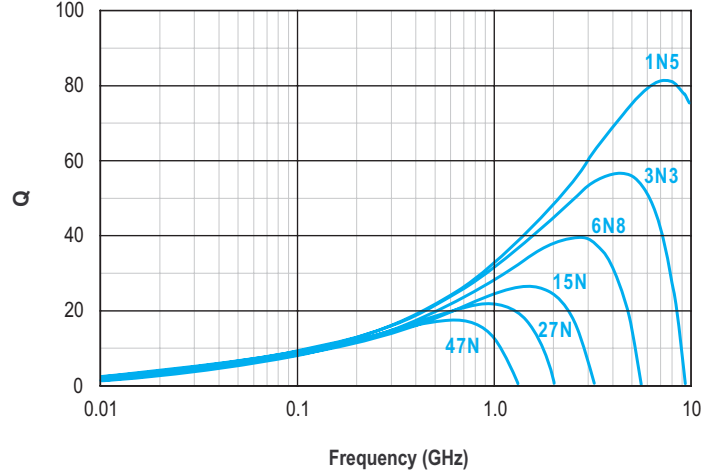
RF Inductors Ceramic

RF Characteristics (Typical)

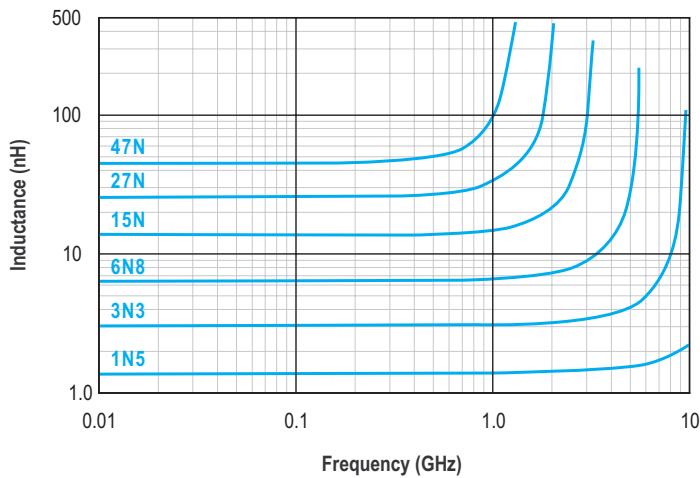
INDUCTANCE VS FREQUENCY: SIZE 0201



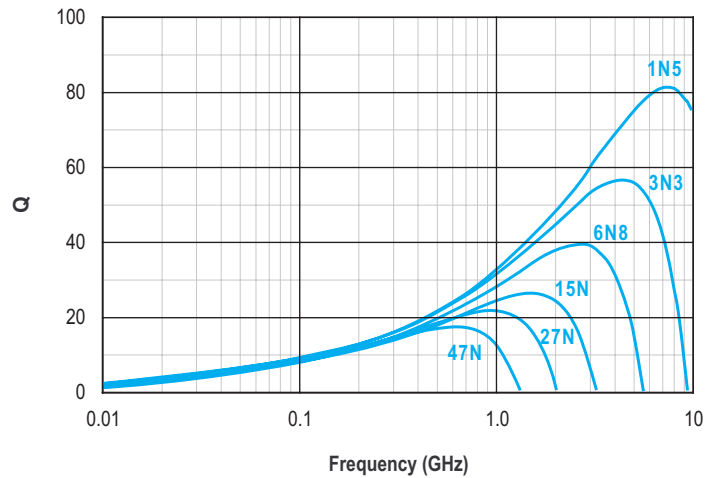
Q VS FREQUENCY: SIZE 0201



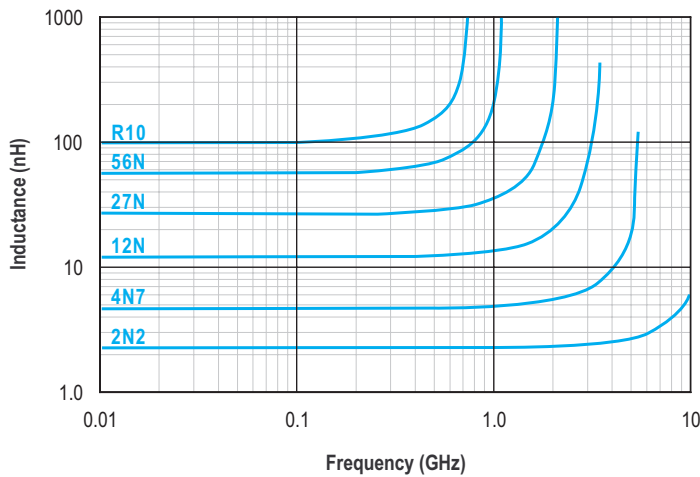
INDUCTANCE VS FREQUENCY: SIZE 0402



Q VS FREQUENCY: SIZE 0402



INDUCTANCE VS FREQUENCY: SIZE 0603



Q VS FREQUENCY: SIZE 0603

