

# RF CERAMIC CHIP INDUCTORS



Polarity Half-Marked Inductors (0201 only)

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 & FEATURES

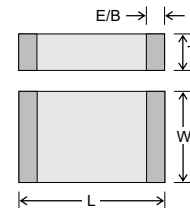
- CELL/PCS Modules
- Broadband Components
- RF Tranceivers
- RoHS Compliant (Standard, "V" Code)
- Sn/Pb Terminations Optional ("T" Code)
- Wireless LAN
- RFID

## PRODUCT RANGE SUMMARY

| EIA SIZE (mm) | SIZE CODE | L RANGE      | Q FACTOR (Min.) | SRF (Typ.)       | TEMPERATURE     |
|---------------|-----------|--------------|-----------------|------------------|-----------------|
| 0201 (0603)   | L-05      | 0.6 - 39 nH  | 4 (100 MHz)     | >21 GHz (1.0 nH) | -40°C to +100°C |
| 0402 (1005)   | L-07      | 1.0 - 120 nH | 8 (100 MHz)     | >21 GHz (1.0 nH) | -40°C to +100°C |
| 0603 (1608)   | L-14      | 1.0 - 220 nH | 12 (100 MHz)    | >23 GHz (1.0 nH) | -40°C to +100°C |

## MECHANICAL CHARACTERISTICS

|           | 0201 (0603) |              | 0402 (1005) |             | 0603 (1608) |             |
|-----------|-------------|--------------|-------------|-------------|-------------|-------------|
|           | Inches      | mm           | Inches      | mm          | Inches      | mm          |
| Length    | .024 ±.001" | (0.6 ±0.03)  | .039 ±.004" | (1.00 ±.10) | .063 ±.006" | (1.60 ±.15) |
| Width     | .012 ±.001" | (0.3 ±0.03)  | .020 ±.004" | (0.50 ±.10) | .031 ±.006" | (0.80 ±.15) |
| Thickness | .012 ±.001" | (0.3 ±0.03)  | .020 ±.004" | (0.50 ±.10) | .031 ±.006" | (0.80 ±.15) |
| End Band  | .006 ±.002" | (0.15 ±0.05) | .009 ±.004" | (0.23 ±.10) | .012 ±.008" | (0.30 ±.20) |



## HOW TO ORDER



| DEVICE   | SIZE                                | TYPE   | VALUE     | TOLERANCE  | TERMINATION                | MARKING  | PACKAGING   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
|----------|-------------------------------------|--|-----------|--|----------------------------|--|---|------|------|------|------|-----|------|---|-------|----|--------|------|---|-------|----|--------|------|---|-------|----|-------|------|------|-----|---|
| Inductor | 05 = 0201<br>07 = 0402<br>14 = 0603 | B = Polarity Half-Marked (all 0201)<br>C = 0402 and 0603 (see "Marking") | See Table | C = ± 0.2 nH ≤ 1.0 nH<br>S = ± 0.3 nH 1.0 to 5.6 nH<br>J = ± 5% 6.8 nH and above<br>K = ± 10% 3.3 nH and above | V = Ni/Sn<br>T = Ni / SnPb | 4 = No Marking (all 0603)<br>6 = Orientation Mark (all 0201 and 0402*) | Tape and Reel<br>Bulk (Loose Pcs.)  |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
|          |                                     |  |           |  |                            |  | <table border="1"> <thead> <tr> <th>Size</th> <th>Code</th> <th>Tape</th> <th>Reel</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>0201</td> <td>T</td> <td>Paper</td> <td>7"</td> <td>15,000</td> </tr> <tr> <td>0402</td> <td>T</td> <td>Paper</td> <td>7"</td> <td>10,000</td> </tr> <tr> <td>0603</td> <td>T</td> <td>Paper</td> <td>7"</td> <td>4,000</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Size</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>All</td> <td>S</td> </tr> </tbody> </table> | Size | Code | Tape | Reel | Qty | 0201 | T | Paper | 7" | 15,000 | 0402 | T | Paper | 7" | 10,000 | 0603 | T | Paper | 7" | 4,000 | Size | Code | All | S |
| Size     | Code                                | Tape   | Reel      | Qty  |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
| 0201     | T                                   | Paper  | 7"        | 15,000   |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
| 0402     | T                                   | Paper  | 7"        | 10,000   |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
| 0603     | T                                   | Paper  | 7"        | 4,000  |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
| Size     | Code                                |  |           |  |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |
| All      | S                                   |  |           |  |                            |  |   |      |      |      |      |     |      |   |       |    |        |      |   |       |    |        |      |   |       |    |       |      |      |     |   |

Part number written: L-07C10NJV6T

Orientation Full Marking (all 0402)



\*Please note that all 0402 inductors (L-07C) have orientation full marking only.

## RF CHIP INDUCTOR SELECTION CHART

| EIA Size         |      | Inductor Value | Tolerance | 0201<br>(L-05) | 0402<br>(L-07)  | 0603<br>(L-14)  |
|------------------|------|----------------|-----------|----------------|-----------------|-----------------|
| Inductance<br>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          | 300 mA          |
| 1.9              | 1N9  | S              | S         | 300 mA         |                 |                 |
| 2.0              | 2N0  |                |           | 300 mA         | 300 mA          |                 |
| 2.2              | 2N2  |                |           | 300 mA         | 300 mA          | 300 mA          |
| 2.3              | 2N3  |                |           | 300 mA         |                 |                 |
| 2.4              | 2N4  |                |           | 300 mA         | 300 mA          |                 |
| 2.5              | 2N5  |                |           | 300 mA         |                 |                 |
| 2.7              | 2N7  |                |           | 300 mA         | 300 mA          | 300 mA          |
| 3.0              | 3N0  |                |           | 300 mA         | 300 mA          |                 |
| 3.3              | 3N3  |                |           | 300 mA         | 300 mA          | 300 mA          |
| 3.6              | 3N6  | K              | S         | 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  |                |           | 250 mA         | 250 mA          | 300 mA          |
| 7.5              | 7N5  |                | 250 mA    |                |                 |                 |
| 8.2              | 8N2  | 250 mA         | 250 mA    | 300 mA         |                 |                 |
| 10               | 10N  | 250 mA         | 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         |                 |                 |
| 20               | 20N  | 200 mA         | 200 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  | J              | K         | 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  |                |           |                |                 |                 |

Consult factory for Non-Standard values.

See web page for Chip Inductor Product Detail Summary by part number



# RF CHARACTERISTICS 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





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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