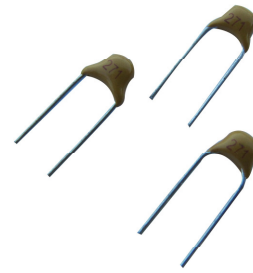


# Multilayer Ceramic Capacitor

## Feature

- \* Widely temperature application
- \* Industry standard sizes
- \* Various lead spacing available
- \* Tape and Reel Available for auto equipment



## RADIAL TYPE, SIZE, CAPACITANCE AND VOLTAGE

| Size | Dimension (mm) |         |         |         |         | Voltage    | Capacitance (pF) |           |           |
|------|----------------|---------|---------|---------|---------|------------|------------------|-----------|-----------|
|      | Pitch          | H (min) | L (max) | W (max) | T (max) |            | NPO              | X7R       | Y5V (Z5U) |
| 0805 | 5.0 or 2.5     | 5.0     | 4.2     | 3.8     | 3.8     | 25V or 50V | 0R5 - 332        | 221 - 105 | 103 - 105 |
| 1206 | 5.0 or 4.0     | 5.0     | 5       | 4.5     | 3.8     | 25V        | 0R5 - 682        | 102 - 105 | 103 - 105 |
|      |                |         |         |         |         | 50V        | 0R5 - 472        | 102 - 105 | 103 - 105 |
| 1210 | 5.0 or 4.0     | 5.0     | 7.6     | 5.5     | 3.8     | 25V        | 561 - 103        | 102 - 334 | 104 - 155 |
|      |                |         |         |         |         | 50V        | 561 - 682        | 102 - 205 | 104 - 155 |
| 1812 | 5.0            | 5.0     | 8.5     | 8.5     | 3.8     | 25V        | 102 - 153        | 103 - 474 | 154 - 335 |
|      |                |         |         |         |         | 50V        | 102 - 103        | 103 - 334 | 154 - 225 |
| 2225 | 7.5            | 5.0     | 10.5    | 9.5     | 4.2     | 25V        | 102 - 223        | 103 - 105 | 684 - 475 |
|      |                |         |         |         |         | 50V        | 102 - 223        | 103 - 105 | 684 - 335 |
| 3035 | 7.5            | 5.0     | 12.5    | 10.5    | 4.2     | 25V        | 102 - 104        | 103 - 225 | 105 - 106 |
|      |                |         |         |         |         | 50V        | 102 - 473        | 103 - 225 | 105 - 685 |

## GENERAL SPECIFICATION

|                               | NPO   | X7R  | Y5V (Z5U)  |
|-------------------------------|---|--|--|
| Capacitance Range             | 0R5 to 104  | 221 to 225   | 103 to 106   |
| Temperature Coefficient       | $\pm 30\text{ppm}/^\circ\text{C}$ or $0\pm 60\text{ppm}/^\circ\text{C}$                           | $\pm 15\%$   | $+30\sim 80\%$ ( $-25^\circ\text{C}$ to $85^\circ\text{C}$ ) |
|                               | ( $-55$ to $+125^\circ\text{C}$ )   | ( $-55$ to $+125^\circ\text{C}$ )  | $+22\sim 56\%$ ( $-10^\circ\text{C}$ to $85^\circ\text{C}$ ) |
| Insulation Resistance         | $C \leq 10\text{nF}$ , $R \geq 10000\text{M}\Omega$<br>$C > 10\text{nF}$ , $C.R \geq 100\text{s}$ | $C \leq 25\text{nF}$ , $R \geq 4000\Omega$<br>$C > 25\text{nF}$ , $C.R \geq 100\text{s}$ |  |
| Withstanding Voltage          | 2.5 x WVDC  |  |  |
| Dissipation Factor            | .15% ( $20^\circ\text{C}$ , 1MHz, 1VDC)   | 2.5% ( $20^\circ\text{C}$ , 1MHz, 1VDC)  | 5.0% ( $20^\circ\text{C}$ , 1MHz, 0.3VDC)                    |
| Rated Voltage                 | 25V or 50VDC  |  |  |
| Capacitance Tolerance         | $+80\sim 20\%$ , 20%, 10%, 5%, 2%, $\pm 0.5\text{pF}$ , $\pm 0.25\text{pF}$                       |  |  |
| Life Test (1000 hours)        | 200% rated voltage at $+125^\circ\text{C}$  |  | 150% rated voltage at $+85^\circ\text{C}$                    |
| Solderability                 | SJ/T10211-91 4.11   | SJ/T10210-91 4.11  |  |
| Resistance To Soldering Heat  | SJ/T10211-91 4.10   | SJ/T10211-91 4.10  |  |
| Mechanical Test               | SJ/T10211-91 4.90   | SJ/T10211-91 4.90  |  |
| Temperature Cycling           | SJ/T10211-91 4.12   | SJ/T10211-91 4.12  |  |
| Moisture Resistance           | SJ/T10211-91 4.14   | SJ/T10211-91 4.14  |  |
| Termination Adhesion Strength | SJ/T10211-91 4.90   | SJ/T10210-91 4.90  |  |
| Environment Testing           | SJ/T10211-91 4.13   | SJ/T10210-91 4.13  |  |