



Click [here](#) for the 3D model.

**General Information**

|                          |   |
|--------------------------|---|
| Series                   | SMD Auto X7R                                    |
| Style                    | SMD Chip  |
| Description              | SMD, MLCC, Temperature Stable, Automotive Grade |
| Features                 | Temperature Stable, Automotive Grade            |
| RoHS                     | Yes   |
| Termination              | Tin   |
| Marking                  | No  |
| Qualifications           | AEC-Q200  |
| AEC-Q200                 | Yes   |
| Typical Component Weight | 4.8 mg  |
| Shelf Life               | 78 Weeks  |
| MSL                      | 1   |

**Dimensions**

|           |                  |
|-----------|------------------|
| Chip Size | 0603             |
| L         | 1.6mm +/-0.15mm  |
| W         | 0.8mm +/-0.15mm  |
| T         | 0.8mm +/-0.07mm  |
| S         | 0.5mm MIN        |
| B         | 0.35mm +/-0.15mm |

**Packaging Specifications**

|                    |                        |
|--------------------|------------------------|
| Packaging          | T&R, 180mm, Paper Tape |
| Packaging Quantity | 4000                   |

**Specifications**

|  |   |
|--|---|
| Capacitance  | 47 pF   |
| Measurement Condition  | 1 kHz 1.0Vrms                                   |
| Capacitance Tolerance  | 10%   |
| Voltage DC   | 50 VDC  |
| Dielectric Withstanding Voltage                                    | 125 VDC   |
| Temperature Range  | -55/+125°C                                      |
| Temperature Coefficient  | X7R   |
| Capacitance Change with Reference to +25°C and 0 VDC Applied (TCC) | 15%, 1kHz 1.0Vrms                               |
| Dissipation Factor   | 2.5% 1 kHz 1.0Vrms                              |
| Aging Rate   | 3% Loss/Decade Hour: Referee Time is 1000 Hours |
| Insulation Resistance  | 100 GOhms                                       |

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