



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  |
| Typical Component Weight | 1.21 mg   |
| Shelf Life               | 78 Weeks  |
| MSL                      | 1   |

**Dimensions**

|                      |                 |
|----------------------|-----------------|
| L                    | 1mm +/-0.05mm   |
| W                    | 0.5mm +/-0.05mm |
| T                    | 0.5mm +/-0.05mm |
| S                    | 0.3mm MIN       |
| B                    | 0.3mm +/-0.1mm  |
| Case Code (EIA / mm) | 0402 / 1005     |

**Packaging Specifications**

|                    |                        |
|--------------------|------------------------|
| Packaging          | T&R, 180mm, Paper Tape |
| Packaging Quantity | 10000                  |

**Specifications**

|  |   |
|--|---|
| Capacitance  | 47 pF   |
| Measurement Condition  | 1 kHz 1.0Vrms                                   |
| Tolerance  | 10%   |
| Voltage DC   | 50 VDC  |
| Dielectric Withstanding Voltage                                    | 125 VDC   |
| Temperature Range  | -55/+125°C                                      |
| Temp. 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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