



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 | 4.8 mg  |
| Shelf Life               | 78 Weeks  |
| MSL                      | 1   |

#### Dimensions

|                      |                  |
|----------------------|------------------|
| L                    | 1.6mm +/-0.15mm  |
| W                    | 0.8mm +/-0.15mm  |
| T                    | 0.8mm +/-0.07mm  |
| S                    | 0.5mm MIN        |
| B                    | 0.35mm +/-0.15mm |
| Case Code (EIA / mm) | 0603 / 1608      |

#### Packaging Specifications

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

#### Specifications

|  |   |
|--|---|
| Capacitance  | 0.047 uF  |
| Measurement Condition  | 1 kHz 1.0Vrms                                   |
| Tolerance  | 5%  |
| 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  | 10 GOhms  |

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