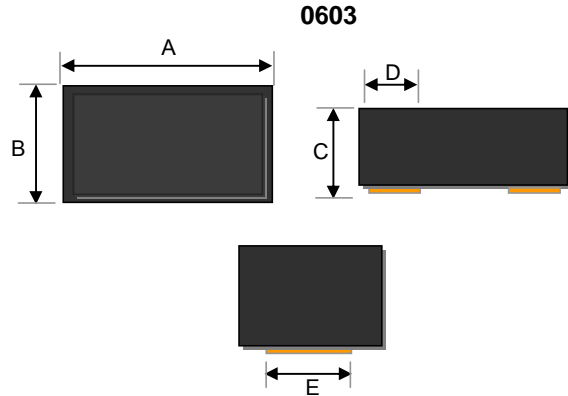
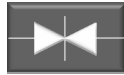


**Small Signal Diode**

**Features**

- ✧ Designed for mounting on small surface.
- ✧ (16KV) IEC61000-4-2 rating.
- ✧ Moisture sensitivity level 1
- ✧ Working Voltage : 5V, 12V, 24V
- ✧ Pb free version and RoHS compliant
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

**Mechanical Data**

- ✧ Case : 0603 standard package, molded plastic
- ✧ Terminal: Gold plated, solder per MIL-STD-750, Method 2026 guaranteed
- ✧ High temperature soldering guaranteed: 250°C/10s
- ✧ Mounting position: Any
- ✧ Weight : 0.003 gram (approximately)

| Dimensions | Unit (mm) |      | Unit (inch) |       |
|------------|-----------|------|-------------|-------|
|            | Min       | Max  | Min         | Max   |
| A          | 1.60      | 1.80 | 0.063       | 0.071 |
| B          | 0.80      | 1.00 | 0.031       | 0.039 |
| C          | 0.70      | 0.85 | 0.027       | 0.033 |
| D          | Typ.      | 0.45 | Typ.        | 0.018 |
| E          | Typ.      | 0.70 | Typ.        | 0.028 |

**Ordering Information**

| Part No.    | Package | Packing         |
|-------------|---------|-----------------|
| TESDUxxx RZ | 0603    | 4Kpcs / 7" Reel |

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

**Maximum Ratings**

| Type Number                                       | Symbol          | Value        | Units |
|---|-----------------|--------------|-------|
| Maximum Power Dissipation                         | $P_D$           | 150          | mW    |
| Thermal Resistance (Junction to Ambient) (Note 1) | $R_{\theta JA}$ | 666          | °C/W  |
| Junction and Storage Temperature Range            | $T_J, T_{STG}$  | -55 to + 150 | °C    |

**Electrical Characteristics**

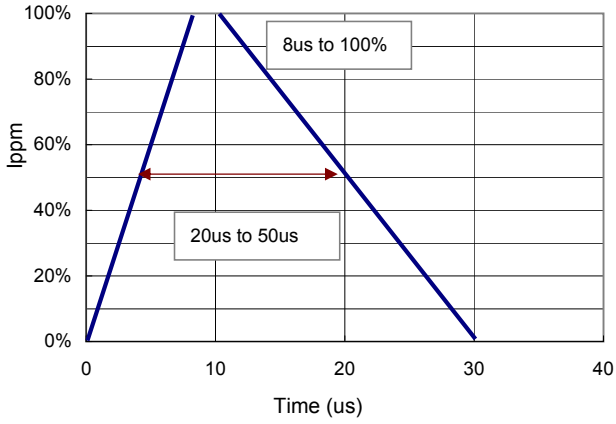
| Type Number   | Symbol     | Min             | Max            | Units |
|---|------------|-----------------|----------------|-------|
| Reverse Breakdown Voltage<br>TESDU5V0<br>TESDU12V<br>TESDU24V | $V_{(BR)}$ | 5.1<br>13<br>25 | 7<br>17<br>28  | V     |
| Reverse Leakage Current<br>TESDU5V0<br>TESDU12V<br>TESDU24V   | $I_R$      | 0.1             | 2              | uA    |
| Clamping Voltage<br>TESDU5V0<br>TESDU12V<br>TESDU24V          | $V_C$      | -<br>-<br>-     | 15<br>25<br>47 | V     |
| Peak Pulse Power<br>TESDU5V0<br>TESDU12V<br>TESDU24V          | $P_{PP}$   | -<br>-<br>-     | 75<br>25<br>7  | W     |
| Junction Capacitance<br>TESDU5V0<br>TESDU12V<br>TESDU24V      | $C_J$      | 15<br>12<br>10  | 20<br>-<br>-   | pF    |

Notes:1. Valid provided that electrodes are kept at ambient temperature

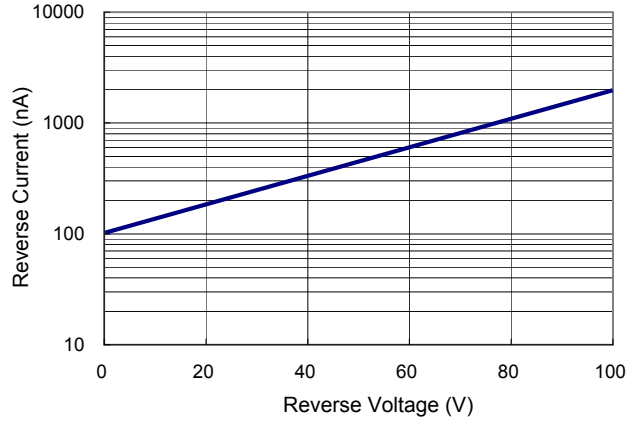
**Small Signal Diode**

**Rating and Sharacteristic Curves**

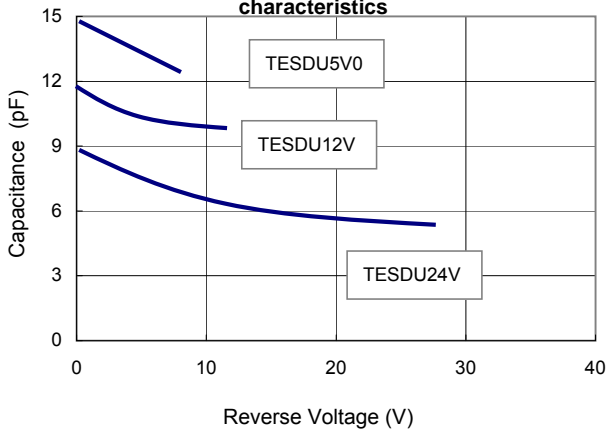
**FIG 1 8/20us Peak pulse current wave from acc.IEC 61000-4-5**



**FIG 2 Reverse Characteristics**



**FIG 3 Capacitance between terminals characteristics**



**FIG 4 Power rating derating curve**

