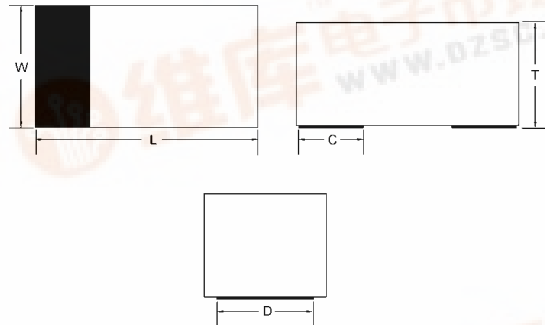




# TSS70U

0.2Amp Surface Mount Schottky Barrier Diode

## 0603



## Features

- ✧ Designed for mounting on small surface
- ✧ Extremely thin/leadless package
- ✧ Low capacitance
- ✧ Low forward voltage drop
- ✧ High temperature soldering:  
260°C/10 seconds at terminals
- ✧ Chip version in 0603

## Mechanical Data

- ✧ Case: 0603 Standard package, molded plastic
- ✧ Terminals: Gold plated, solderable per  
MIL-STD-750, method 2026.
- ✧ Polarity: Indicated by cathode band
- ✧ Mounting position: Any
- ✧ Package code: RZ
- ✧ Weight: 0.003 gram (approximately)

| ITEM | 0603                       |
|------|----------------------------|
| L    | 0.071(1.80)<br>0.063(1.60) |
| W    | 0.039(1.00)<br>0.031(0.80) |
| T    | 0.033(0.85)<br>0.027(0.70) |
| C    | 0.018(0.45)<br>Typical     |
| D    | 0.028(0.70)<br>Typical     |

Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number                                                                                     | Symbol       | 0603         | Units |
|-------------------------------------------------------------------------------------------------|--------------|--------------|-------|
| Repetitive Peak Reverse Voltage                                                                 | $V_{RRM}$    | 70           | V     |
| DC Reverse Voltage                                                                              | $V_R$        | 70           | V     |
| RMS Reverse Voltage                                                                             | $V_{R(RMS)}$ | 49           | V     |
| Average Forward Current                                                                         | $I_O$        | 70           | mA    |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$    | 100          | mA    |
| Power Dissipation                                                                               | $P_d$        | 150          | mW    |
| Forward Voltage<br>$I_F=1mA$<br>$I_F=15mA$                                                      | $V_F$        | 0.41<br>1.0  | V     |
| Reverse Leakage Current<br>$V_R=25V$                                                            | $I_R$        | 0.1          | uA    |
| Typical capacitance between terminals<br>$V_R=0V$ , $f=1.0MHz$ reverse voltage                  | $C_J$        | 2            | pF    |
| Reverse Recovery Time<br>( $I_F=I_R=10mA$ , $I_{rr}=0.1 \times I_R$ , $R_L=100\Omega$ )         | $T_{rr}$     | 5            | nS    |
| Junction Temperature                                                                            | $T_J$        | -65 to + 125 | °C    |
| Storage Temperature                                                                             | $T_{STG}$    | -65 to + 125 | °C    |

## RATINGS AND CHARACTERISTIC CURVES(TSS70U)

Fig. 1 - Forward characteristics

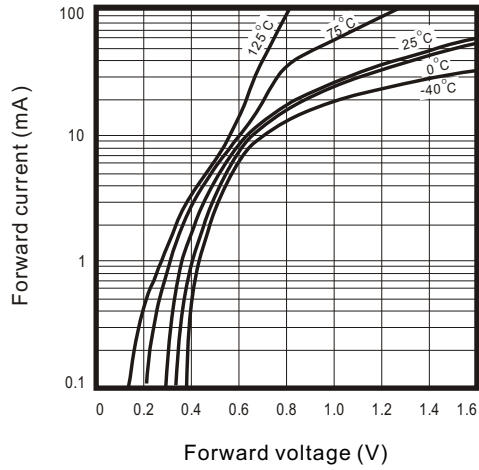


Fig. 2 - Reverse characteristics

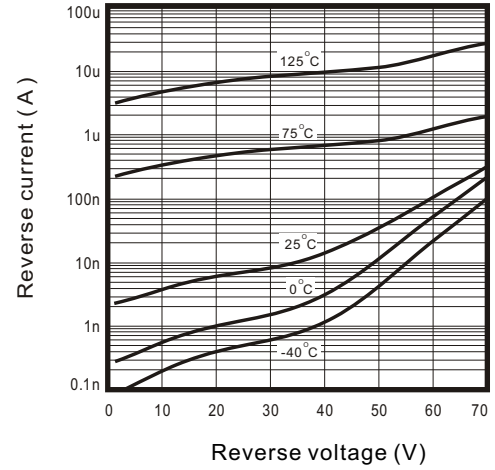


Fig.3 - Capacitance between terminals characteristics

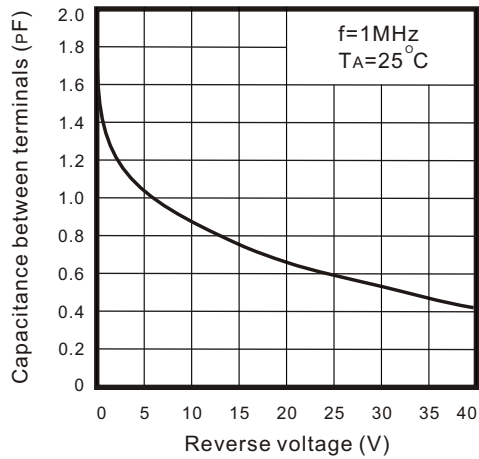


Fig.4 - Current derating curve

