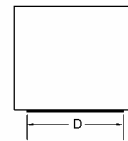
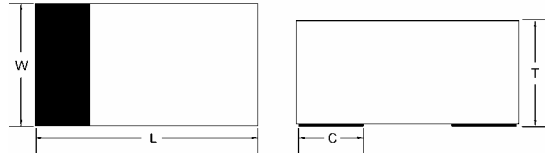
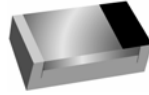


TSS42U/43U

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) |
| | 0.063(1.60) |
| W | 0.039(1.00) |
| | 0.031(0.80) |
| T | 0.033(0.85) |
| | 0.027(0.70) |
| C | 0.018(0.45) |
| | Typical |
| D | 0.028(0.70) |
| | 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} | 30 | V |
| DC Reverse Voltage | V_R | 30 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | V |
| Average Forward Current | I_O | 200 | mA |
| Repetitive Peak Forward Current | I_{FRM} | 500 | mA |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 4 | A |
| Power Dissipation | P_d | 150 | mW |
| Forward Voltage | V_F | TSS42U/43U IF=200mA | 1.0 |
| | | TSS42U IF=10mA | 0.4 |
| | | TSS42U IF=50mA | 0.65 |
| | | TSS43U IF=2mA | 0.33 |
| | | TSS43U IF=15mA | 0.45 |
| Reverse Leakage Current VR=25V | I_R | 0.5 | uA |
| Typical capacitance between terminals VR=1V, f =1.0MHz reverse voltage | C_J | 10 | pF |
| Reverse Recovery Time (IF=IR=10mA, Irr=0.1 x IR, RL=100Ω) | T_{rr} | 5 | nS |
| Thermal Resistance Junction to Ambient Air | $R_{θJA}$ | 667 | °C/W |
| Junction Temperature | T_J | -65 to + 125 | °C |
| Storage Temperature | T_{STG} | -65 to + 125 | °C |

RATINGS AND CHARACTERISTIC CURVES(TSS42U)

Fig. 1 - Forward characteristics

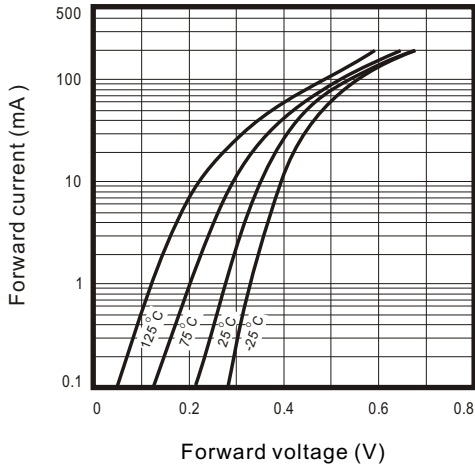


Fig. 2 - Reverse characteristics

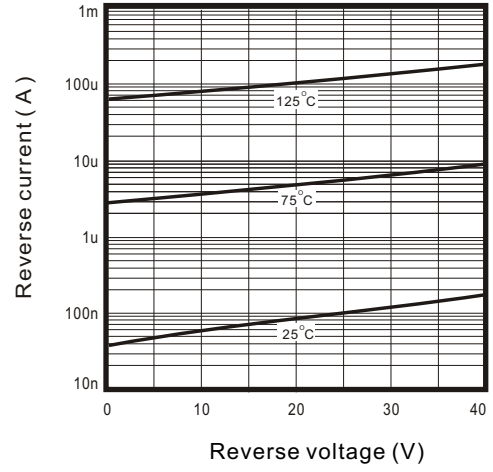


Fig.3 - Capacitance between terminals characteristics

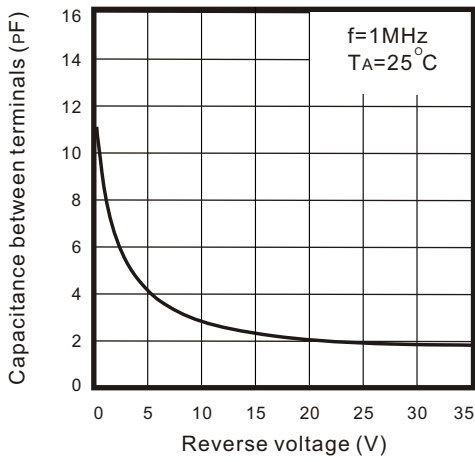


Fig.4 - Current derating curve

