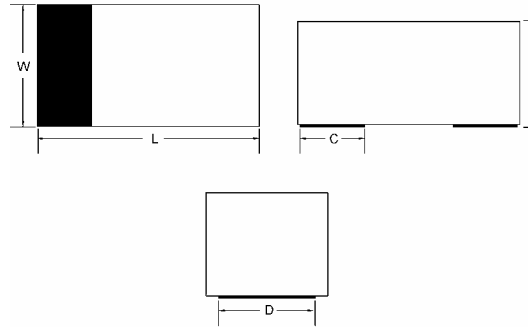




# TSS42L/TSS43L

## 0.2Amp Surface Mount Schottky Barrier Diode

**1005**



### 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 1005

### Mechanical Data

- ✧ Case: 1005 Standard package, molded plastic
- ✧ Terminals: Gold plated, solderable per  
MIL-STD-750, method 2026.
- ✧ Polarity: Indicated by cathode band
- ✧ Mounting position: Any
- ✧ Package code: RW
- ✧ Weight: 0.006 gram (approximately)

| ITEM | 1005                       |
|------|----------------------------|
| L    | 0.102(2.60)<br>0.095(2.40) |
| W    | 0.051(1.30)<br>0.043(1.10) |
| T    | 0.035(0.90)<br>0.027(0.70) |
| C    | 0.020(0.50)<br>Typical     |
| D    | 0.040(1.00)<br>Typical     |

Dimensions in inches and (millimeters)

Maximum Ratings  $T_A=25^\circ\text{C}$  unless otherwise specified

| Type Number                                                                                                                                                  | Symbol       | 1005                               | Units            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------|------------------|
| Repetitive Peak Reverse Voltage                                                                                                                              | $V_{RRM}$    | 30                                 | V                |
| 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                                                                                                                              | $I_{FRM}$    | 0.5                                | A                |
| Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed on<br>rate load (JEDEC method)                                                        | $I_{FSM}$    | 400                                | mA               |
| Power Dissipation                                                                                                                                            | $P_d$        | 200                                | mW               |
| Forward Voltage TSS42L/43L $I_F=200\text{mA}$<br>TSS42L $I_F=10\text{mA}$<br>TSS42L $I_F=50\text{mA}$<br>TSS43L $I_F=2\text{mA}$<br>TSS43L $I_F=15\text{mA}$ | $V_F$        | 1.0<br>0.4<br>0.65<br>0.33<br>0.45 | V                |
| Reverse Leakage Current $V_R=25\text{V}$                                                                                                                     | $I_R$        | 0.5                                | $\mu\text{A}$    |
| Typical capacitance between terminals<br>$V_R=1\text{V}$ , $f=1.0\text{MHz}$ reverse voltage                                                                 | $C_J$        | 10                                 | pF               |
| Reverse Recovery Time<br>( $I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \times I_R$ , $R_L=100\Omega$ )                                                               | $T_{rr}$     | 5                                  | nS               |
| Junction Temperature                                                                                                                                         | $T_J$        | -55 to + 125                       | $^\circ\text{C}$ |
| Storage Temperature                                                                                                                                          | $T_{STG}$    | -55 to + 125                       | $^\circ\text{C}$ |

## RATINGS AND CHARACTERISTIC CURVES(TSS42L/TSS43L)

Fig. 1 - Forward characteristics

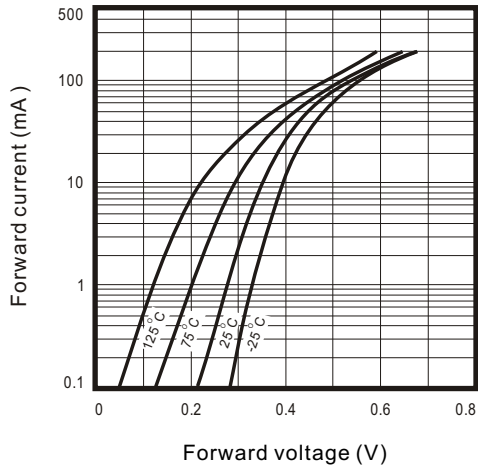


Fig. 2 - Reverse characteristics

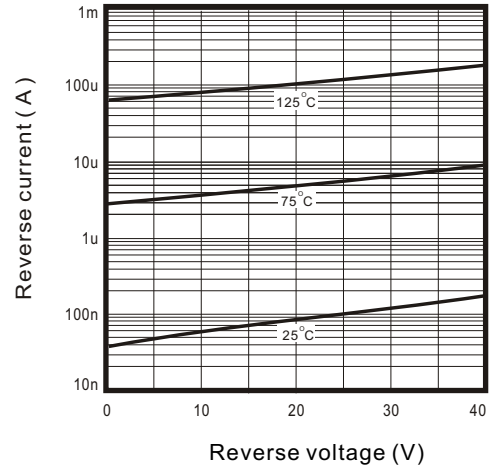


Fig.3 - Capacitance between terminals characteristics

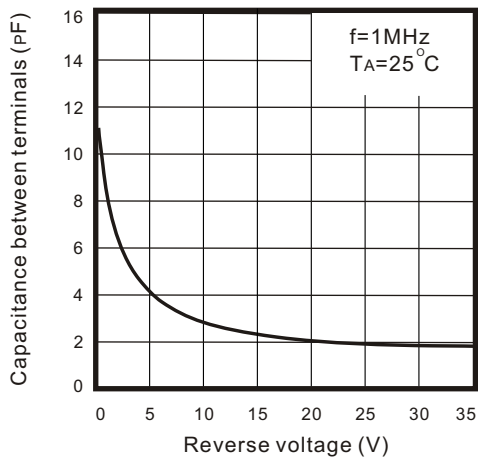


Fig.4 - Current derating curve

