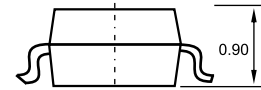
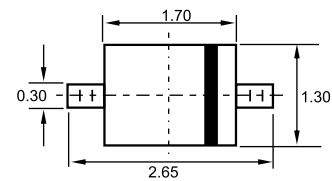



**SOD-323**


Dimensions in inches and (millimeters)

**Features**

- ✧ Extremely Fast Switching Speed
- ✧ Low forward voltage

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

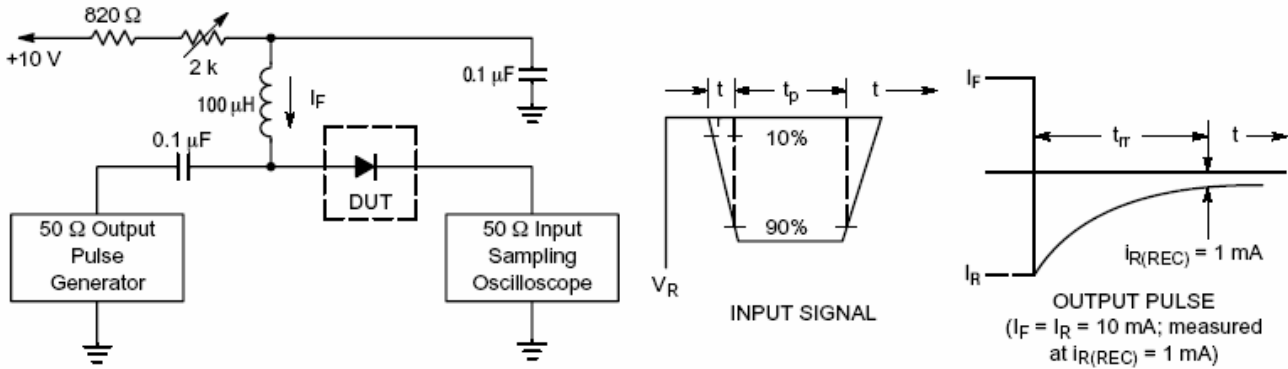
**Maximum Ratings**

| Parameter                                   | Symbol          | Limits  | Unit |
|---|-----------------|---------|------|
| Non-Repetitive Peak reverse voltage         | $V_{RM}$        | 30      | V    |
| DC Blocking Voltage                         | $V_R$           | 21      | V    |
| Average Rectified Output Current            | $I_O$           | 100     | mA   |
| Forward continuous Current                  | $I_F$           | 200     | mA   |
| Repetitive peak Forward Current             | $I_{FRM}$       | 300     | mA   |
| Forward Surge Current                       | $I_{FSM}$       | 600     | mA   |
| Power Dissipation                           | $P_d$           | 200     | mW   |
| Thermal resistance, junction to ambient air | $R_{\theta JA}$ | 625     | °C/W |
| Junction temperature                        | $T_J$           | 125     | °C   |
| Storage temperature range                   | $T_{STG}$       | -65-150 | °C   |

**Electrical Characteristics @ $T_A=25^\circ\text{C}$** 

| Parameter                     | Symbol      | Conditions  | Min. | Typ. | Max. | Unit |
|-------------------------------|-------------|---|------|------|------|------|
| Reverse Breakdown Voltage     | $V_{(BR)R}$ | $I_R=100\mu\text{A}$  | 30   |      |      | V    |
| Forward voltage               | $V_{F1}$    | $I_F=0.1\text{mA}$  |      |      | 240  | mV   |
|                               | $V_{F2}$    | $I_F=1.0\text{mA}$  |      |      | 320  | mV   |
|                               | $V_{F3}$    | $I_F=10\text{mA}$   |      |      | 400  | mV   |
|                               | $V_{F4}$    | $I_F=30\text{mA}$   |      |      | 500  | mV   |
|                               | $V_{F5}$    | $I_F=100\text{mA}$  |      |      | 1000 | mV   |
| Reverse current               | $I_R$       | $V_R=25\text{V}$  |      |      | 2.0  | uA   |
| Reverse recovery time         | $t_{rr}$    | $I_F=10\text{mA}$ , $I_R=10\text{mA}$ to 1mA ,<br>$R_L=100\Omega$ |      |      | 5.0  | ns   |
| Capacitance between terminals | $C_T$       | $V_R=1\text{V}$ , $f=1\text{MHz}$                                 |      |      | 10   | pF   |

## Typical Characteristics



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10 mA.  
 2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10 mA.  
 3.  $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

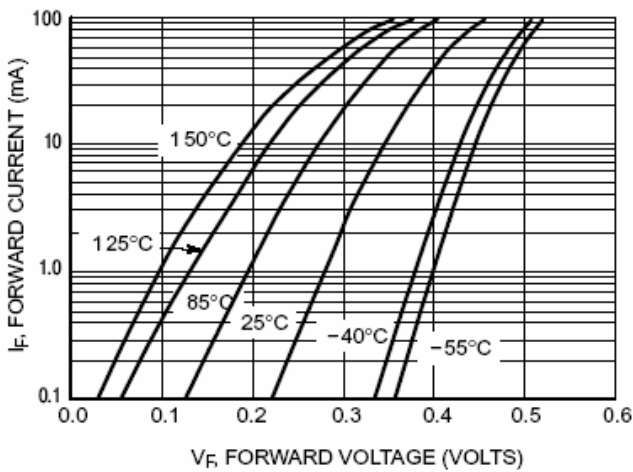


Figure 2. Forward Voltage

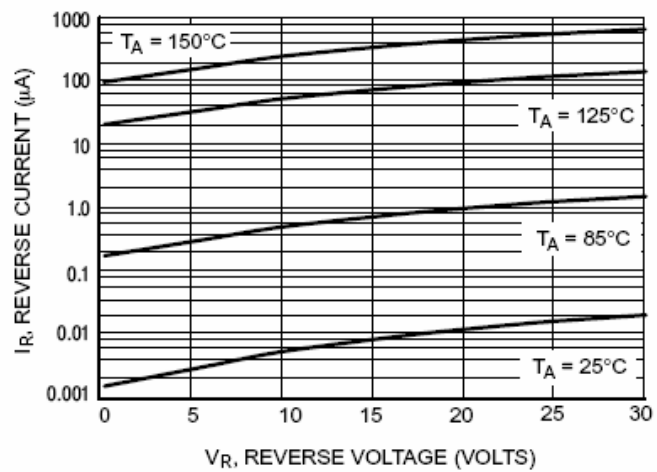


Figure 3. Leakage Current

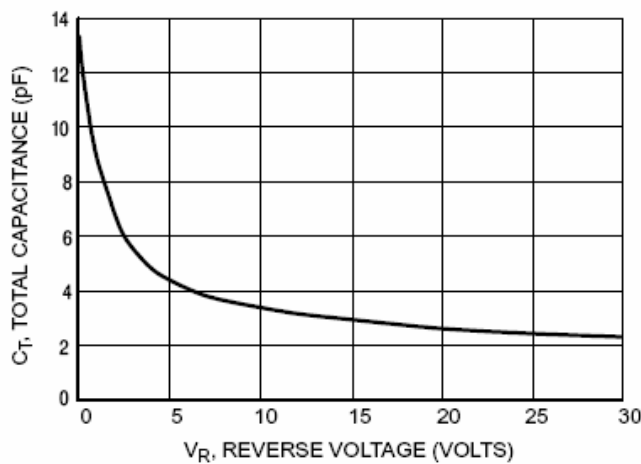


Figure 4. Total Capacitance

| PACKAGE | SPQ/PCS   | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SOD-323 | 3000/REEL | 180000         | 44X44X22       | 9.00         | 8.00         |