

## HIGH VOLTAGE SWITCHING DIODE

**1. FEATURES**

We declare that the material of product compliance with RoHS requirements and Halogen Free.



SOD-123

**2. DEVICE MARKING AND ORDERING INFORMATION**

**Marking:** T3

**3. MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )**

| Parameter  | Symbol     | Limits | Unit |
|--|------------|--------|------|
| Continuous Reverse Voltage                               | VR         | 250    | V    |
| Peak Forward Current                                     | IF         | 200    | mA   |
| Peak Forward Surge Current                               | IFM(surge) | 625    | mA   |
| Non-Repetitive Peak Forward Current<br>$t_p=10\text{ms}$ | IFSM       | 3.5    | A    |

**4. THERMAL CHARACTERISTICS**

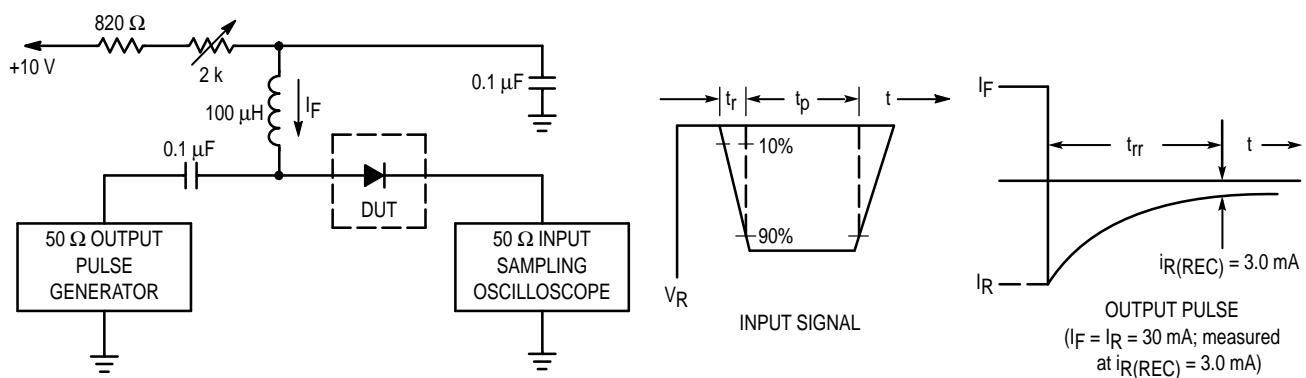
| Parameter   | Symbol          | Limits   | Unit                       |
|---|-----------------|----------|----------------------------|
| Total Device Dissipation FR-5 Board, (Note 1)<br>$T_A = 25^\circ\text{C}$ | PD              | 250<br>2 | mW<br>mW/ $^\circ\text{C}$ |
| Derate above $25^\circ\text{C}$   |                 |          |                            |
| Thermal resistance from junction to ambient                               | $R_{\theta JA}$ | 500      | $^\circ\text{C}/\text{W}$  |
| Junction and Storage Temperature  | $T_J, T_{stg}$  | -55~+150 | $^\circ\text{C}$           |

1.FR-5 Minimum Pad

## HIGH VOLTAGE SWITCHING DIODE

## 5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| Characteristic  | Symbol | Min. | Typ. | Max.        | Unit |
|---|--------|------|------|-------------|------|
| Reverse Voltage Leakage Current<br>(VR=200V)<br>(VR=200V, Tj=150°C) | IR     | -    | -    | 0.1<br>100  | µA   |
| Reverse Breakdown Voltage<br>(IBR=100µA)                            | VBR    | 250  | -    | -           | V    |
| Forward Voltage<br>(IF=100mA)<br>(IF=200mA)                         | VF     | -    | -    | 1.0<br>1.25 | V    |
| Diode Capacitance<br>(VR =0V, f=1.0MHz)                             | CD     | -    | -    | 5           | pF   |
| Reverse Recovery Time<br>(IF =IR =30mA, RL =100Ω)                   | trr    | -    | -    | 50          | ns   |

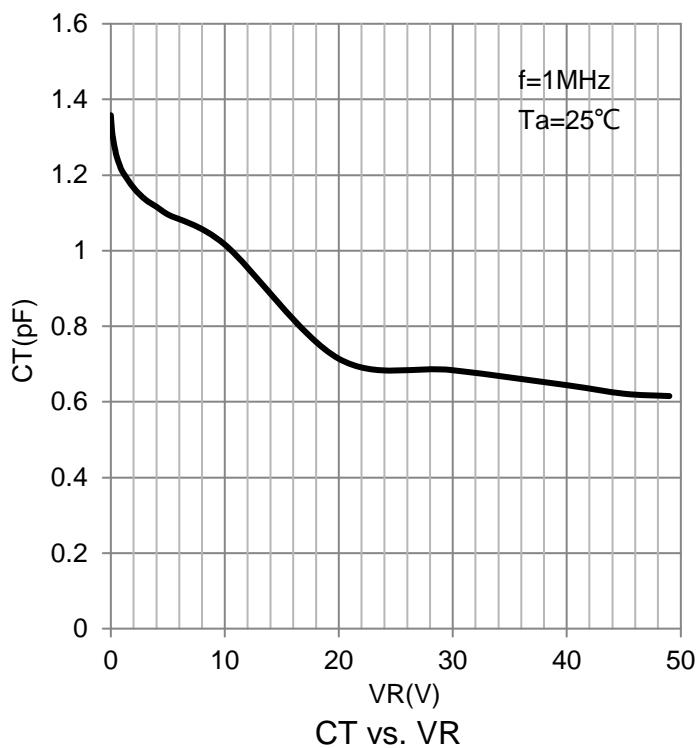
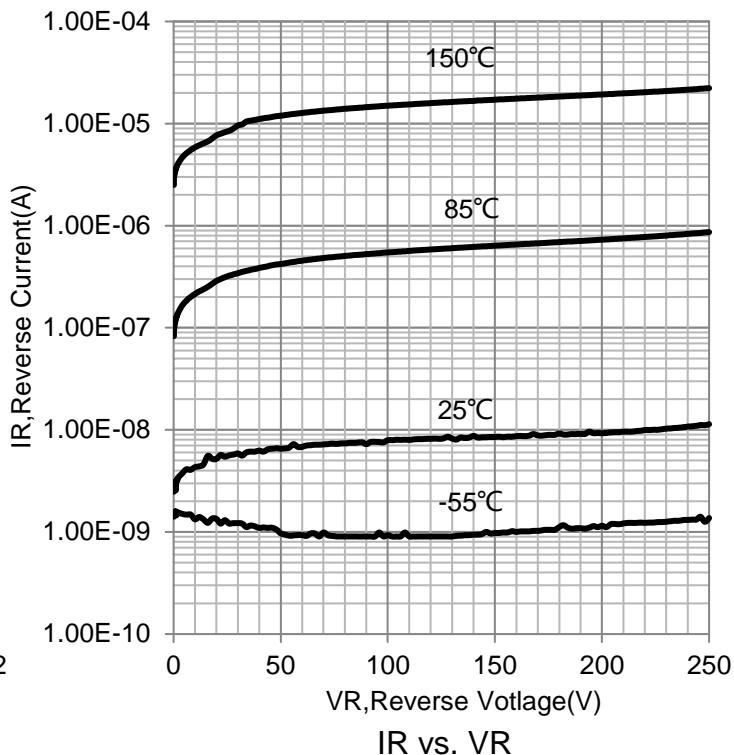
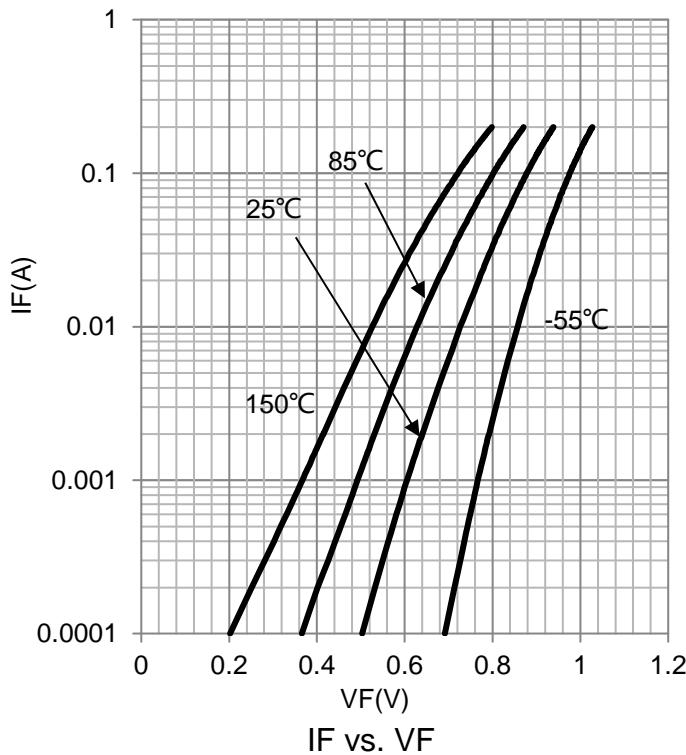


Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (IF) of 30 mA.  
 2. Input pulse is adjusted so  $i_{R(\text{peak})}$  is equal to 30 mA.  
 3.  $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

## HIGH VOLTAGE SWITCHING DIODE

## 6.ELECTRICAL CHARACTERISTICS CURVES

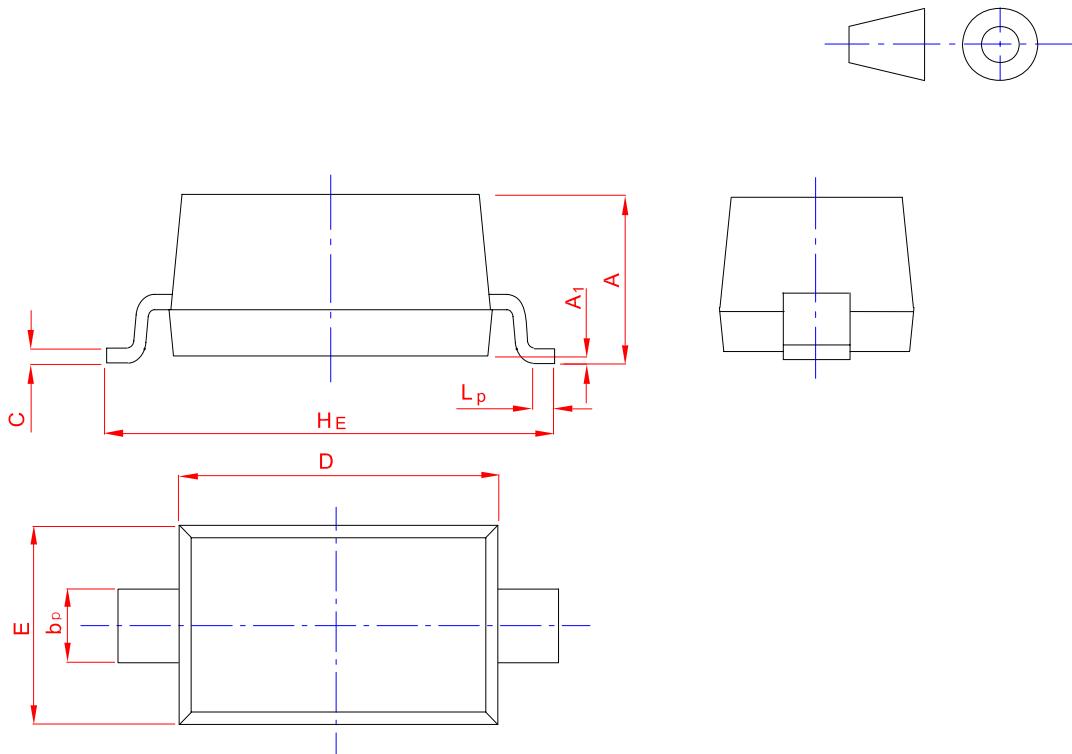


## HIGH VOLTAGE SWITCHING DIODE

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



| UNIT | A            | b <sub>p</sub> | C              | D            | E            | H <sub>E</sub> | A <sub>1</sub> | L <sub>p</sub> |
|------|--------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|
| mm   | 1.20<br>0.90 | 0.60<br>0.50   | 0.135<br>0.100 | 2.75<br>2.55 | 1.65<br>1.55 | 3.85<br>3.55   | 0.10<br>0.01   | 0.50<br>0.20   |