

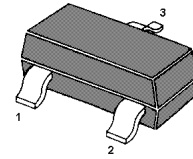
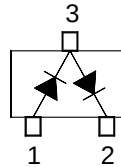
## Silicon Epitaxial Planar Switching Diode

## Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

## Applications

- Ultra high speed switching application
- Marking Code: C3



Marking Code: **C3**  
SOT-23 Plastic Package

Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                                         | Symbol      | Value         | Unit             |
|---------------------------------------------------|-------------|---------------|------------------|
| Maximum Peak Reverse Voltage                      | $V_{RM}$    | 85            | V                |
| Reverse Voltage                                   | $V_R$       | 80            | V                |
| Average Rectified Forward Current                 | $I_{F(AV)}$ | 100           | mA               |
| Maximum Peak Forward Current                      | $I_{FM}$    | 300           | mA               |
| Non-repetitive Peak Forward Surge Current (10 ms) | $I_{FSM}$   | 2             | A                |
| Power Dissipation                                 | $P_{tot}$   | 350           | mW               |
| Junction Temperature                              | $T_j$       | 150           | $^\circ\text{C}$ |
| Storage Temperature Range                         | $T_{stg}$   | - 55 to + 150 | $^\circ\text{C}$ |

Characteristics at  $T_a = 25^\circ\text{C}$ 

| Parameter                                              | Symbol   | Max. | Unit          |
|--------------------------------------------------------|----------|------|---------------|
| Forward Voltage<br>at $I_F = 100\text{ mA}$            | $V_F$    | 1.2  | V             |
| Reverse Current<br>at $V_R = 80\text{ V}$              | $I_R$    | 0.5  | $\mu\text{A}$ |
| Total Capacitance<br>at $V_R = 0$ , $f = 1\text{ MHz}$ | $C_T$    | 3    | pF            |
| Reverse Recovery Time<br>at $I_F = 10\text{ mA}$       | $t_{rr}$ | 4    | ns            |

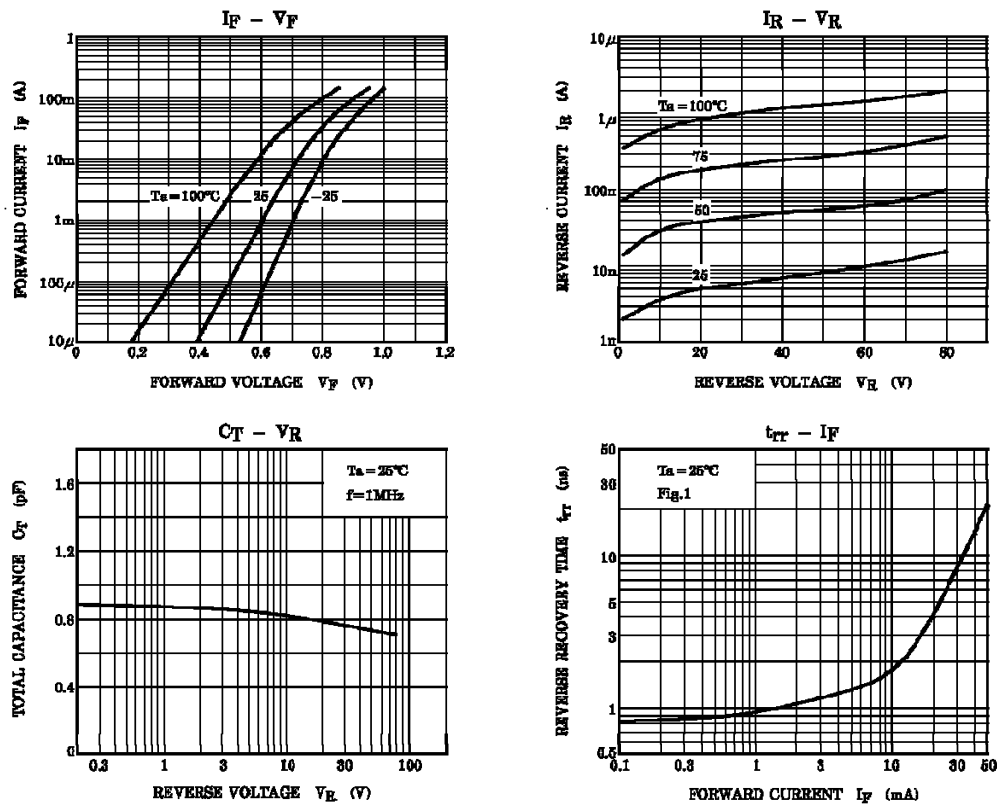
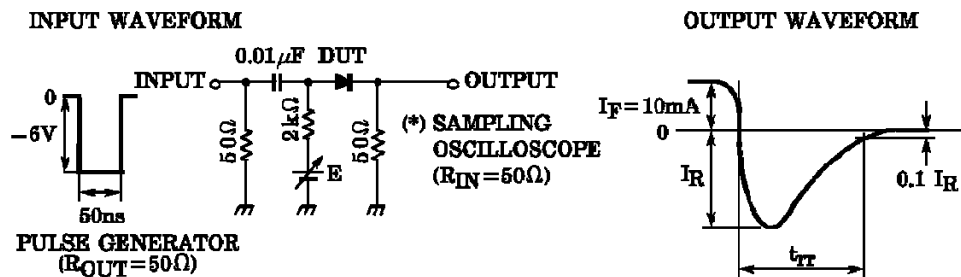
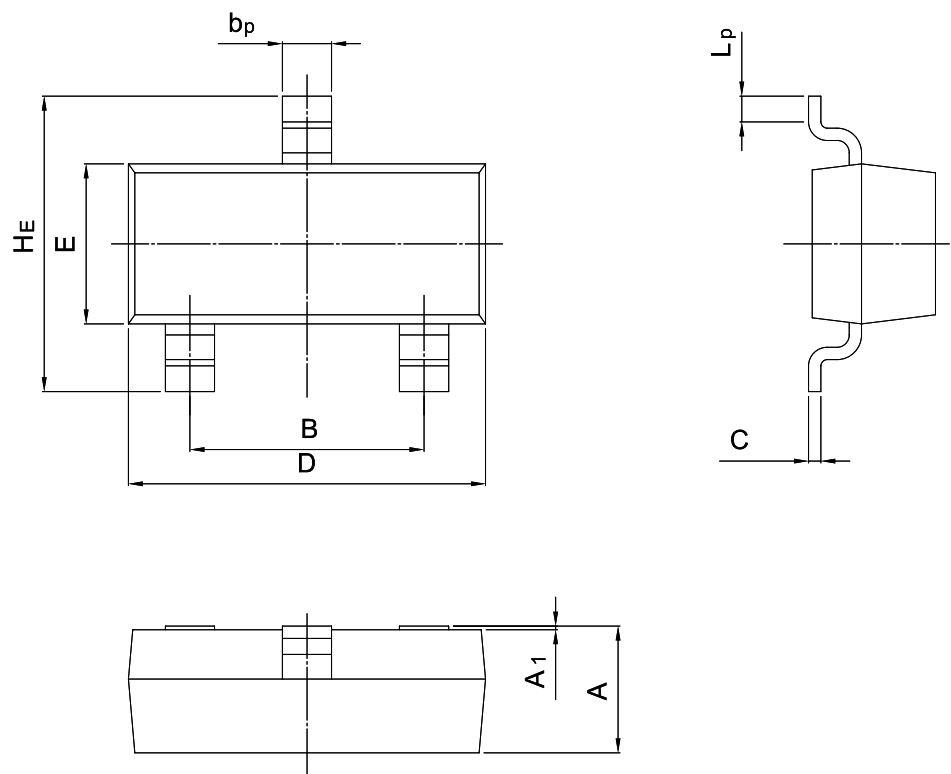


Fig.1 Reverse recovery time ( $t_{rr}$ ) test circuit



**PACKAGE OUTLINE**  
 Plastic surface mounted package; 3 leads

SOT-23



| UNIT | A            | B            | bp           | C            | D            | E            | HE           | A1             | Lp           |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| mm   | 1.40<br>0.95 | 2.04<br>1.78 | 0.50<br>0.35 | 0.19<br>0.08 | 3.10<br>2.70 | 1.65<br>1.20 | 3.00<br>2.20 | 0.100<br>0.013 | 0.50<br>0.20 |

