

# 1SS355

## Silicon Epitaxial Planar Switching Diode

### Features

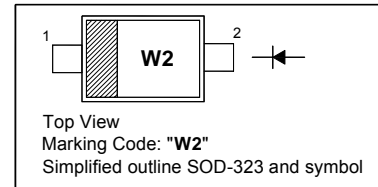
- Small plastic package suitable for surface mounted design
- High reliability with high surge current handling capability

### Applications

- High speed switching

#### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

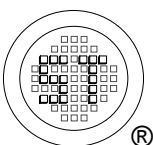


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                         | Symbol      | Value         | Unit             |
|-----------------------------------|-------------|---------------|------------------|
| Peak Reverse Voltage              | $V_{RM}$    | 90            | V                |
| Reverse Voltage                   | $V_R$       | 80            | V                |
| Average Rectified Forward Current | $I_{F(AV)}$ | 100           | mA               |
| Peak Forward Current              | $I_{FM}$    | 225           | mA               |
| Surge Forward Current (1 s)       | $I_{FSM}$   | 500           | mA               |
| Junction Temperature              | $T_j$       | 150           | $^\circ\text{C}$ |
| Storage Temperature Range         | $T_{stg}$   | - 55 to + 150 | $^\circ\text{C}$ |

### Electrical Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ )

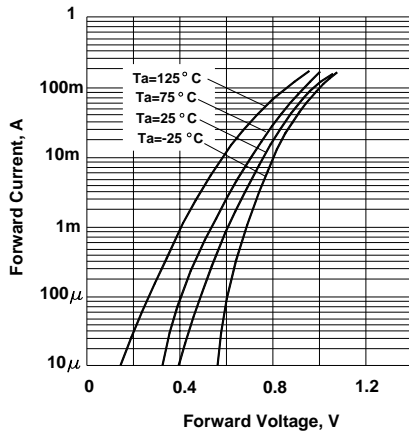
| Parameter   | Symbol   | Max. | Unit          |
|---|----------|------|---------------|
| Forward Voltage<br>at $I_F = 100\text{ mA}$   | $V_F$    | 1.2  | V             |
| Reverse Current<br>at $V_R = 80\text{ V}$   | $I_R$    | 0.1  | $\mu\text{A}$ |
| Capacitance between Terminals<br>at $V_R = 0.5\text{ V}$ , $f = 1\text{ MHz}$               | $C_T$    | 3    | pF            |
| Reverse Recovery Time<br>at $V_R = 6\text{ V}$ , $I_F = 10\text{ mA}$ , $R_L = 100\ \Omega$ | $t_{rr}$ | 4    | ns            |



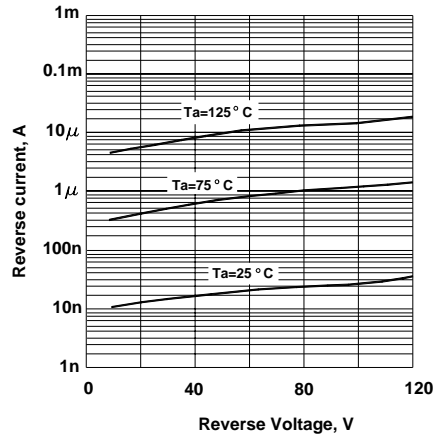
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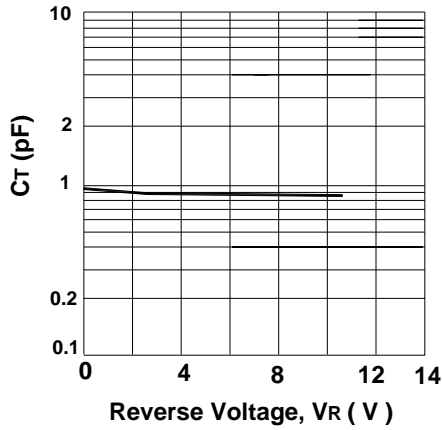
**Forward Characteristics**



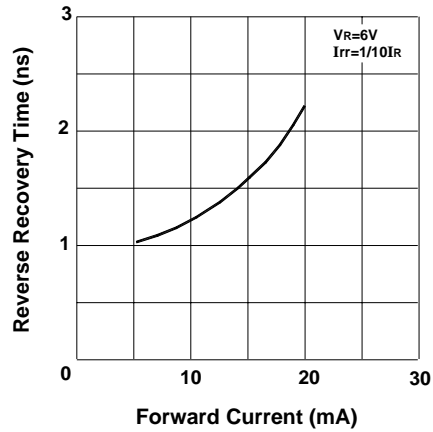
**Reverse Characteristics**



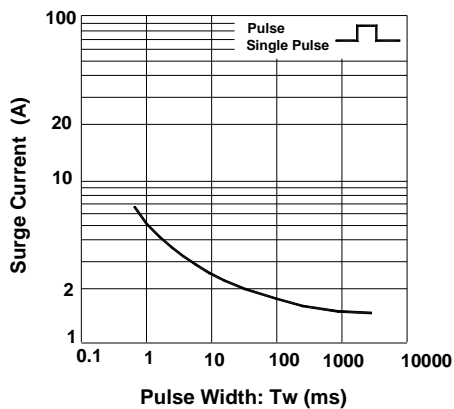
**Capacitance between terminals characteristics**



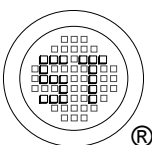
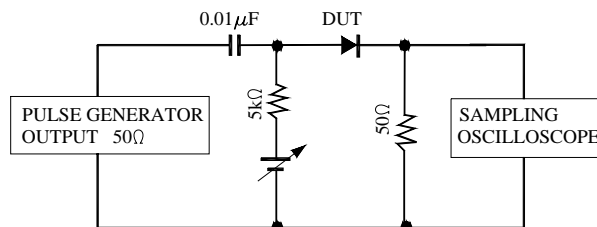
**Reverse Recovery Time Characteristics**



**Surge Current Characteristics**



**Reverse Recovery Time Measurement Circuit**



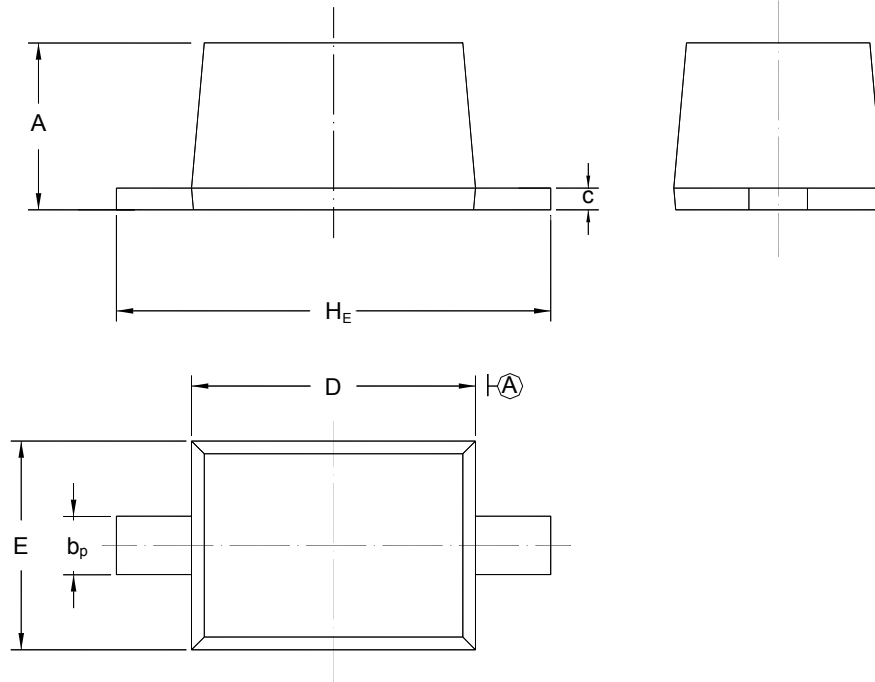
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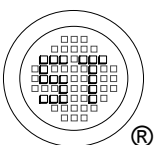
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A            | b <sub>p</sub> | C            | D            | E            | H <sub>E</sub> |
|------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm   | 1.10<br>0.80 | 0.40<br>0.25   | 0.15<br>0.10 | 1.80<br>1.60 | 1.35<br>1.15 | 2.80<br>2.30   |



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