

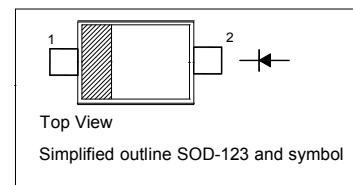
## Surface Mount Schottky Barrier Diodes

### Features

- Low Forward Voltage

### PINNING

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

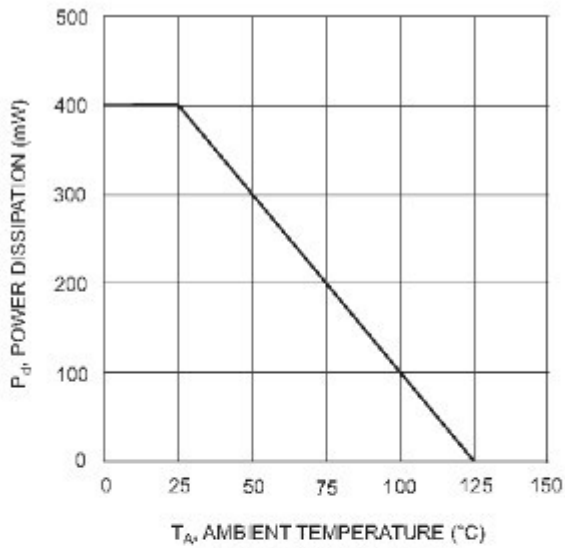


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

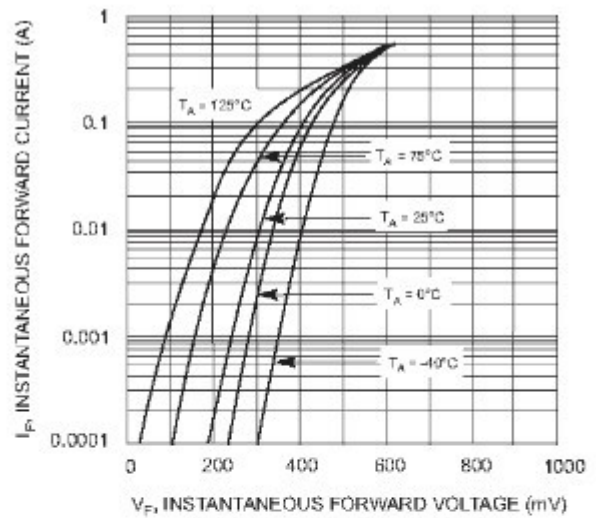
| Parameter   | Symbol         | Value         | Unit             |
|---|----------------|---------------|------------------|
| Peak Repetitive Reverse Voltage                               | $V_{RRM}$      | 20            | V                |
|   |                | 30            |                  |
|   |                | 20            |                  |
| Reverse Voltage   | $V_R$          | 20            | V                |
|   |                | 30            |                  |
|   |                | 40            |                  |
| Average Forward Rectified Current                             | $I_{F(AV)}$    | 350           | mA               |
| Non-Repetitive Peak Forward Surge Current at $t = 1\text{ s}$ | $I_{FSM}$      | 2             | A                |
| Power Dissipation   | $P_{tot}$      | 400           | mW               |
| Operating and Storage Temperature Range                       | $T_j, T_{stg}$ | - 65 to + 125 | $^\circ\text{C}$ |

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

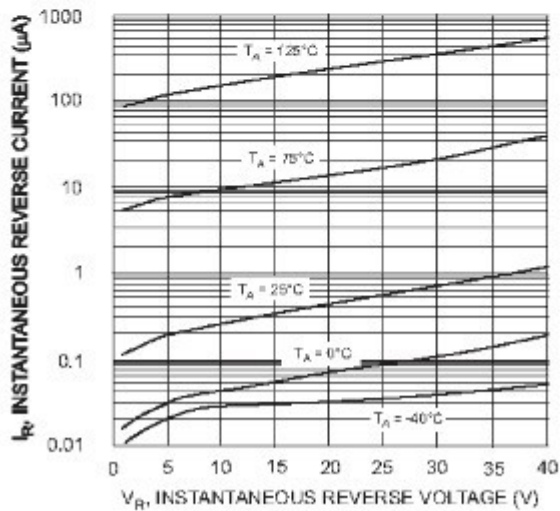
| Parameter  | Symbol      | Min. | Typ. | Max. | Unit          |
|--|-------------|------|------|------|---------------|
| Reverse Breakdown Voltage<br>at $I_R = 10\text{ }\mu\text{A}$  | $V_{(BR)R}$ | 20   | -    | -    | V             |
|  |             | 30   | -    | -    |               |
|  |             | 40   | -    | -    |               |
| Reverse Leakage Current<br>at $V_R = 10\text{ V}$<br>at $V_R = 20\text{ V}$<br>at $V_R = 30\text{ V}$    | $I_R$       | -    | -    | 5    | $\mu\text{A}$ |
|  |             | -    | -    | 5    |               |
|  |             | -    | -    | 5    |               |
| Forward Voltage<br>at $I_F = 20\text{ mA}$<br>at $I_F = 200\text{ mA}$                                   | $V_F$       | -    | -    | 0.37 | V             |
|  |             | -    | -    | 0.6  |               |
| Total Capacitance<br>at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$  | $C_T$       | -    | 50   | -    | pF            |
| Reverse Recovery Time<br>at $I_F = I_R = 200\text{ mA}$ , $I_{rr} = 0.1 I_R$ , $R_L = 100\text{ }\Omega$ | $t_{rr}$    | -    | 10   | -    | ns            |



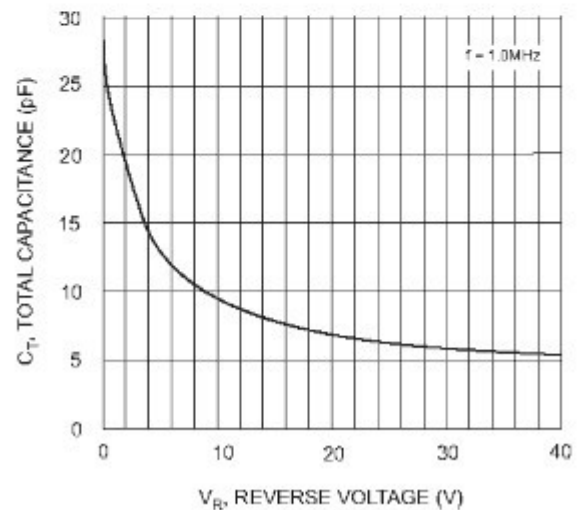
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (mV)  
Fig. 2 Typical Forward Characteristics



$V_R$ , INSTANTANEOUS REVERSE VOLTAGE (V)  
Fig. 3 Typical Reverse Characteristics



$C_T$ , TOTAL CAPACITANCE (pF)  
Fig. 4 Typ. Total Capacitance vs. Reverse Voltage

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123

