

## Surface Mount Schottky Barrier Diodes

### Features

- Low Forward Voltage



Top View  
Marking Code: **E4**  
Simplified outline SOD-323 and symbol  
PINNING

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

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

| Parameter                                                     | Symbol         | Value         | Unit             |
|---------------------------------------------------------------|----------------|---------------|------------------|
| Peak Repetitive Reverse Voltage                               | $V_{RRM}$      | 40            | V                |
| Reverse Voltage                                               | $V_R$          | 40            | V                |
| Average Forward Rectified Current                             | $I_{F(AV)}$    | 380           | mA               |
| Non-Repetitive Peak Forward Surge Current at $t = 1\text{ s}$ | $I_{FSM}$      | 2             | A                |
| Power Dissipation                                             | $P_{tot}$      | 200           | mW               |
| Operating and Storage Temperature Range                       | $T_j, T_{stg}$ | - 65 to + 125 | $^\circ\text{C}$ |

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

| Parameter                                                                                          | Symbol      | Min.   | Typ.   | Max.        | Unit          |
|----------------------------------------------------------------------------------------------------|-------------|--------|--------|-------------|---------------|
| Reverse Breakdown Voltage<br>at $I_R = 10$                                                         | $V_{(BR)R}$ | 40     | -      | -           | V             |
| Reverse Leakage Current<br>at $V_R = 30\text{ V}$                                                  | $I_R$       | -      | -      | 5           | $\mu\text{A}$ |
| Forward Voltage<br>at $I_F = 20\text{ mA}$<br>at $I_F = 200\text{ mA}$                             | $V_F$       | -<br>- | -<br>- | 0.36<br>0.6 | V             |
| Total Capacitance<br>at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$                                    | $C_T$       | -      | 50     | -           | pF            |
| Reverse Recovery Time<br>at $I_F = I_R = 200\text{ mA}$ , $I_{rr} = 0.1 I_R$ , $R_L = 100\ \Omega$ | $t_{rr}$    | -      | 10     | -           | ns            |

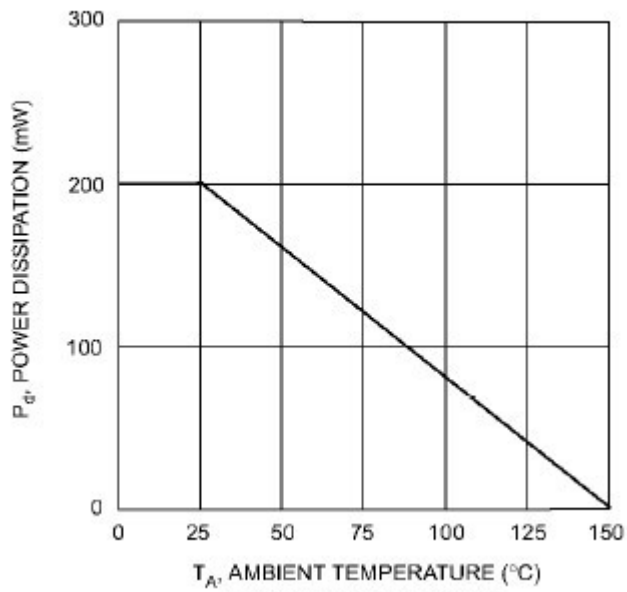


Fig. 1 Power Derating Curve

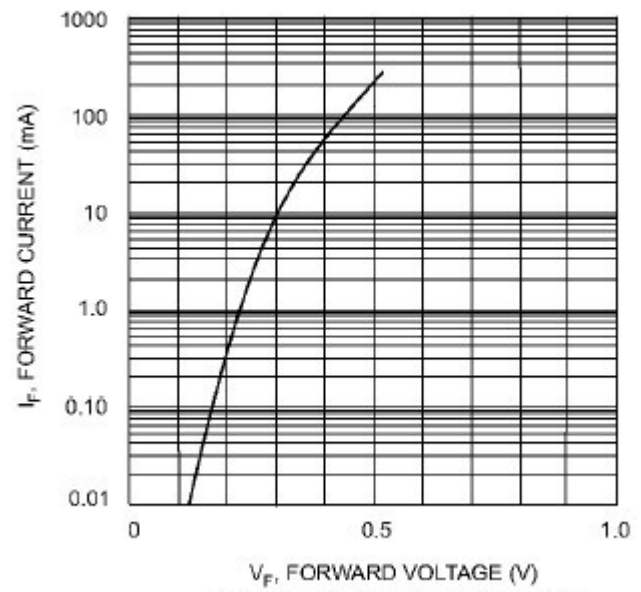


Fig. 2 Typical Forward Characteristics

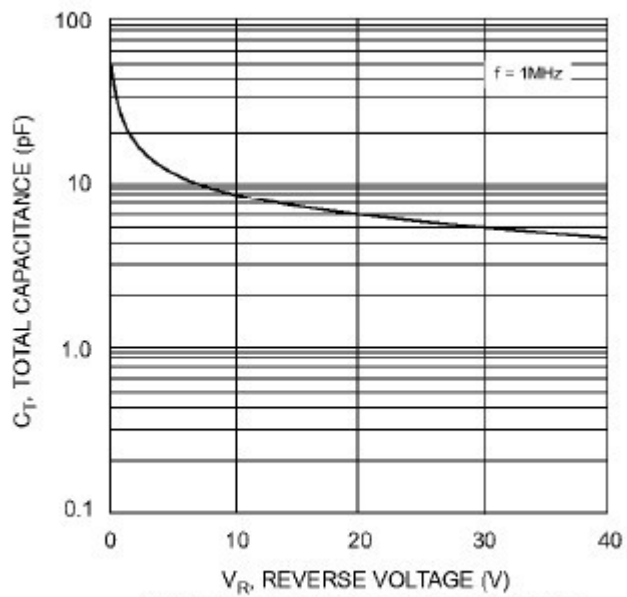
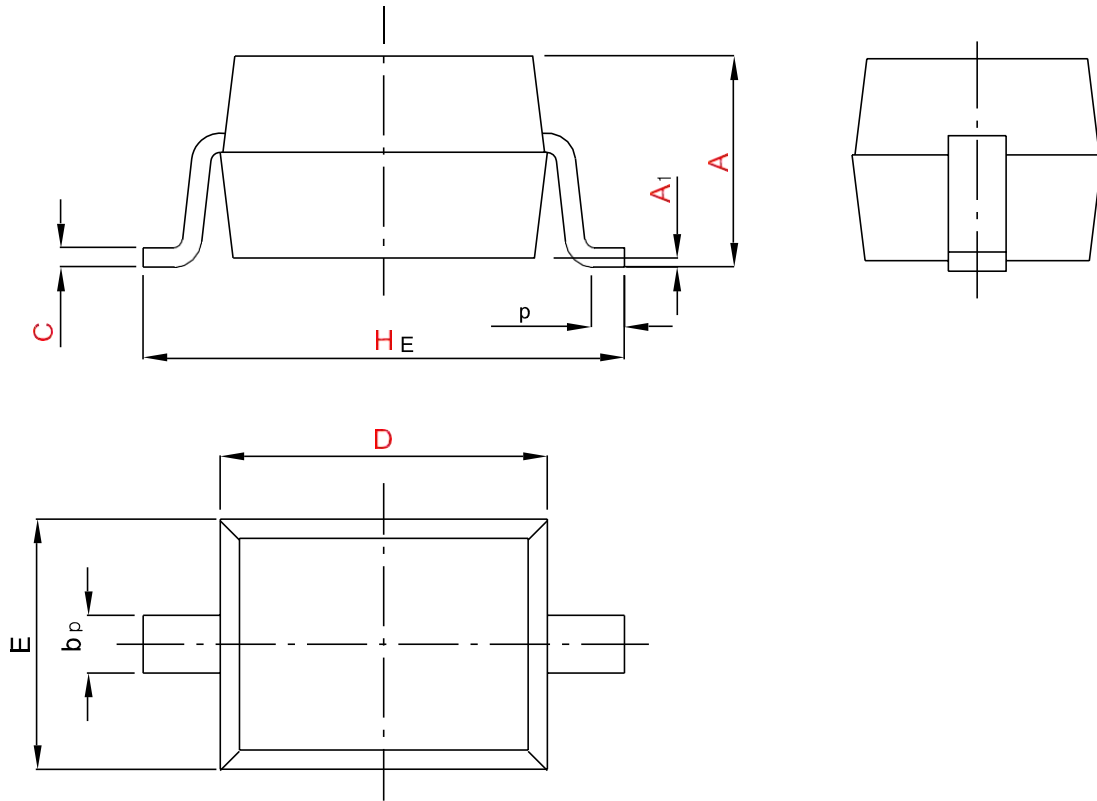


Fig. 3 Total Capacitance vs Reverse Voltage

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

### SOD323



| 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 | 0.40<br>0.25   | 0.15<br>0.10 | 1.80<br>1.60 | 1.35<br>1.15 | 2.80<br>2.30   | 0.10<br>0.01   | 0.50<br>0.20   |

