

## FEATURES

- I Low current rectifierschottky diode
- I Low voltage, low inductance
- I For power supply

SOD-323



MAKING: D

## Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

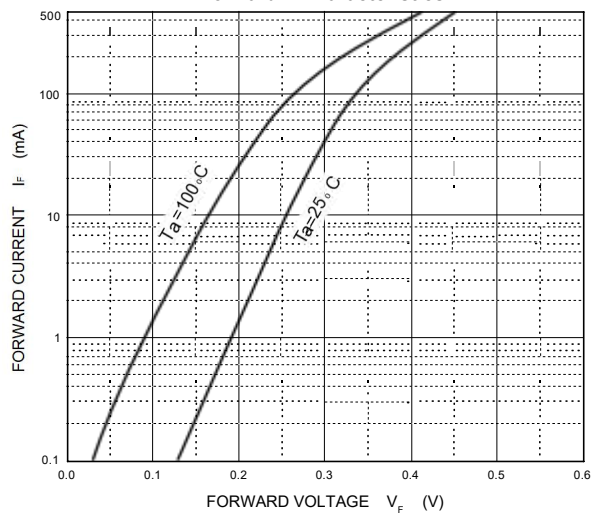
| Parameter S                                       | ymbol           | Limit      | Unit |
|---------------------------------------------------|-----------------|------------|------|
| Peak reverse voltage                              | $V_{RM}$        | 30         | V    |
| DC reverse voltage                                | $V_R$           | 30         | V    |
| Mean rectifying current                           | $I_O$           | 0.5        | A    |
| Non-repetitive Peak Forward Surge Current@t=8.3ms | $I_{FSM}$       | 2          | A    |
| Power dissipation                                 | $P_d$           | 200        | mW   |
| Thermal resistance junction to ambient            | $R_{\theta JA}$ | 500        | °C/W |
| Operating Junction Temperature Range              | $T_j$           | -40 ~ +125 | °C   |
| Storage Temperature Range                         | $T_{stg}$       | -55 ~ +150 | °C   |

## Electrical Ratings @Ta=25°C

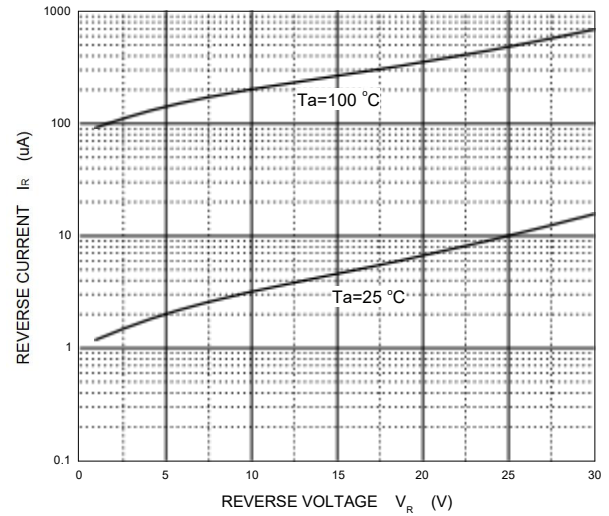
| Parameter       | Symbol | Min | Typ | Max          | Unit | Conditions                 |
|-----------------|--------|-----|-----|--------------|------|----------------------------|
| Forward voltage | $V_F$  |     |     | 0.36<br>0.47 | V    | $I_F=100mA$<br>$I_F=500mA$ |
| Reverse current | $I_R$  |     |     | 100          | μA   | $V_R=20V$                  |

## Typical Characteristics

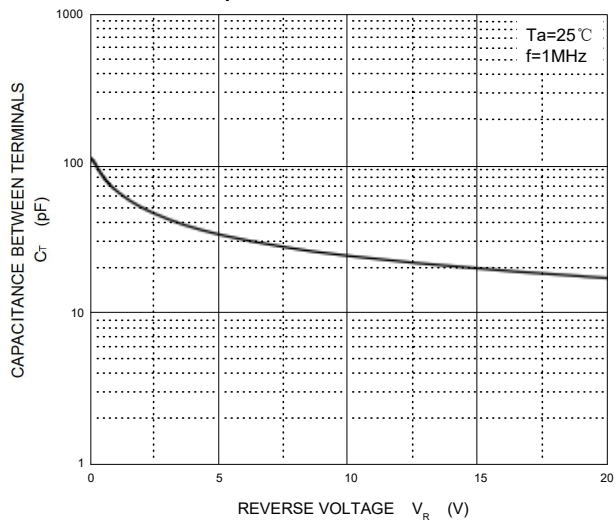
**Forward Characteristics**



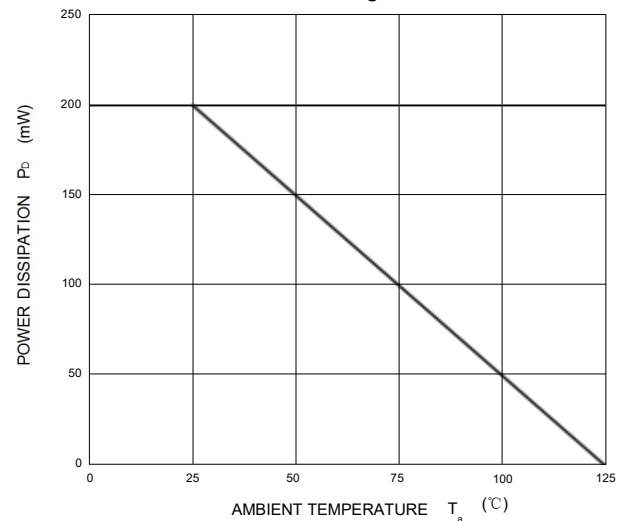
**Reverse Characteristics**

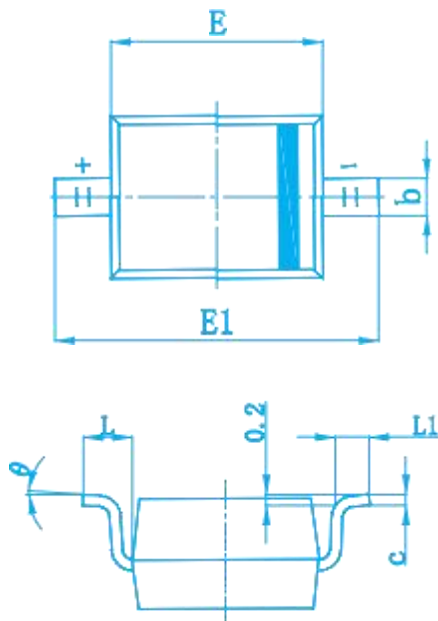


**Capacitance Characteristics**

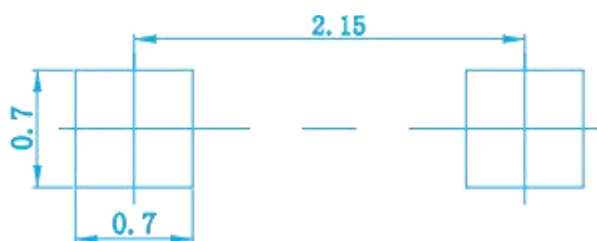


**Power Derating Curve**



**SOD-323 Package Outline Dimensions**


| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      |                           | 1.100 |                      | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.800                     | 1.000 | 0.031                | 0.039 |
| b      | 0.250                     | 0.350 | 0.010                | 0.014 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E      | 1.600                     | 1.800 | 0.063                | 0.071 |
| E1     | 2.500                     | 2.750 | 0.098                | 0.108 |
| L      | 0.475 REF                 |       | 0.019 REF            |       |
| L1     | 0.250                     | 0.400 | 0.010                | 0.016 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

**SOD-323 Suggested Pad Layout**

**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.