

# SOD-123 SCHOTTKY BARRIER DIODE

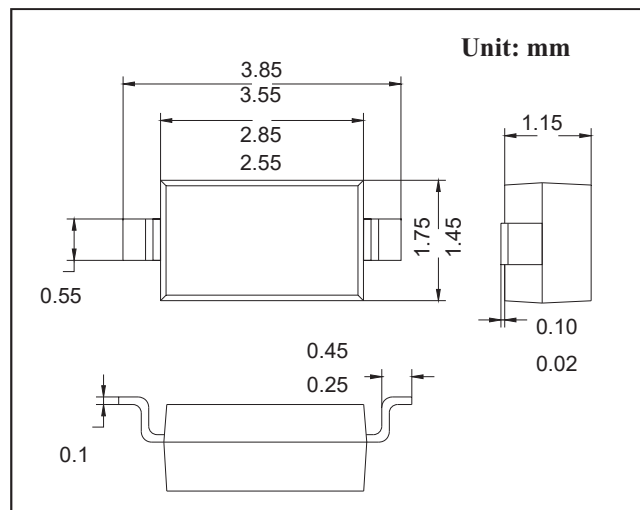
VOLTAGE RANGE:40V PEAK PULSE POWER:400mW

## FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient
- Protection Negligible Reverse Recovery Time

## MECHANICAL DATA

- Case: SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter                                          | Symbol          | Value    | Unit |
|----------------------------------------------------|-----------------|----------|------|
| Peak Repetitive Peak Reverse Voltage               | $V_{RRM}$       | 40       | V    |
| Working Peak Reverse Voltage                       | $V_{RWM}$       |          |      |
| DC Blocking Voltage                                | $V_R$           |          |      |
| RMS Reverse Voltage                                | $V_{R(RMS)}$    | 28       | V    |
| Forward Continuous Current                         | $I_{FM}$        | 15       | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | $I_{FSM}$       | 2.0      | A    |
| Power Dissipation                                  | $P_d$           | 400      | mW   |
| Thermal Resistance Junction to Ambient             | $R_{\theta JA}$ | 250      | °C/W |
| Junction temperature                               | $T_j$           | 125      | °C   |
| Storage Temperature                                | $T_{STG}$       | -55~+150 | °C   |

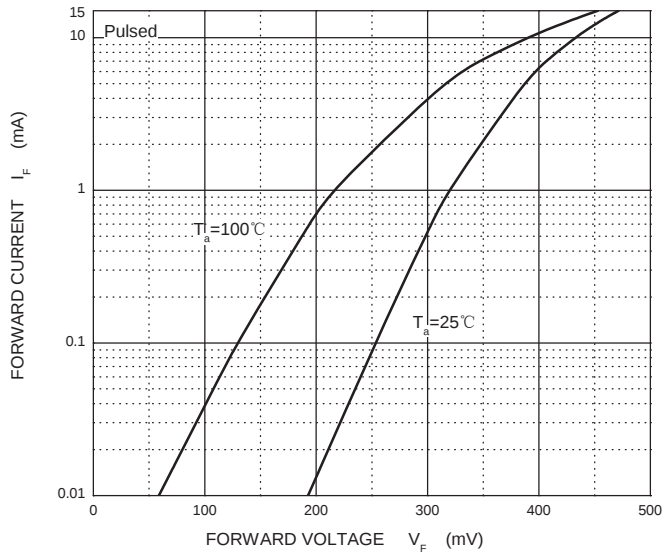
## Electrical Specification (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                     | Symbol   | Min | Typ | Max          | Unit    | Conditions                                      |
|-------------------------------|----------|-----|-----|--------------|---------|-------------------------------------------------|
| Reverse breakdown voltage     | $V_R$    | 40  |     |              | V       | $I_R=10\mu A$                                   |
| Forward voltage               | $V_F$    |     |     | 0.39<br>0.90 | V       | $I_F=1.0mA$<br>$I_F=15mA$                       |
| Reverse current               | $I_R$    |     |     | 0.2          | $\mu A$ | $V_R=30V$                                       |
| Capacitance between terminals | $C_T$    |     | 2.2 |              | pF      | $V_R=0V, f=1.0MHz$                              |
| Reverse recovery time         | $t_{rr}$ |     |     | 1.0          | ns      | $I_F=I_R=5mA$<br>$I_{rr}=0.1I_R, R_L=100\Omega$ |

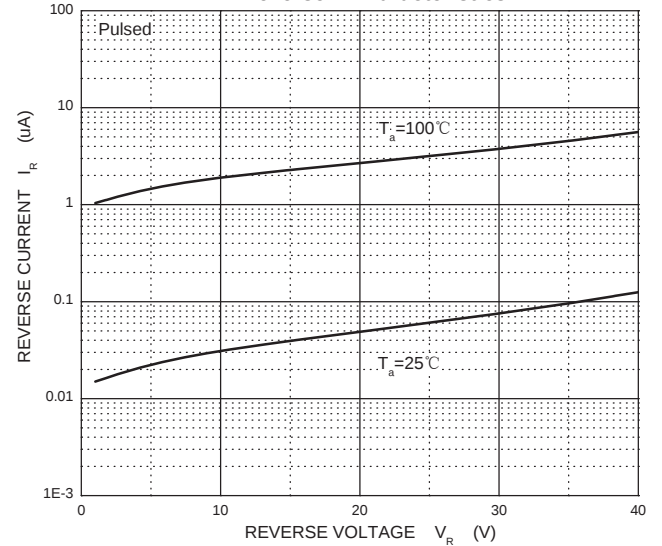
MARKING: S3

## RATINGS AND CHARACTERISTIC CURVES

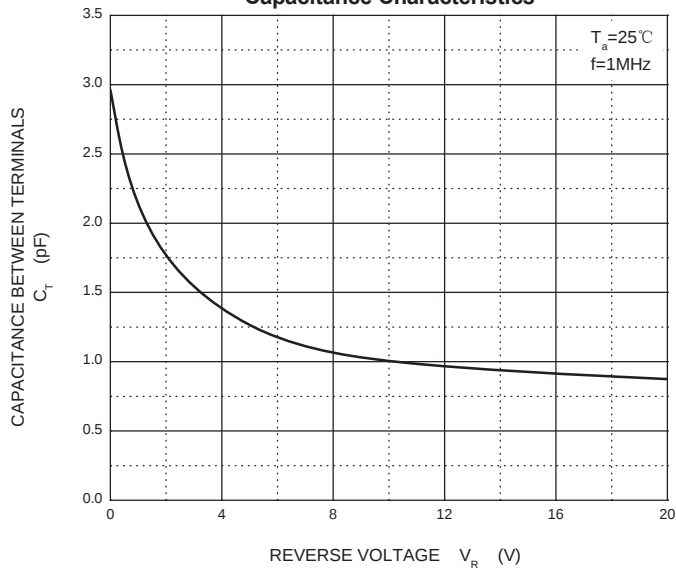
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

