

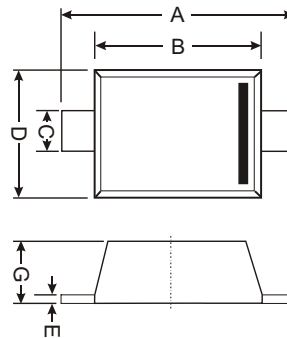
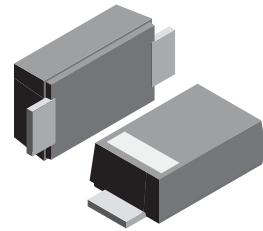
VOLTAGE RANGE: 40V
CURRENT: 250mA

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Surface Mount Package

Mechanical Data

- Case: SOD-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Marking Code: S4
- Weight: 0.002 grams (approx.)



| SOD-523 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 1.50 | 1.70 |
| B | 1.10 | 1.30 |
| C | 0.25 | 0.35 |
| D | 0.70 | 0.90 |
| E | 0.10 | 0.20 |
| G | 0.50 | 0.70 |
| All Dimensions in mm | | |

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|-----------------------------------|-------------|------|
| Peak Repetitive 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} | 250 | mA |
| Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s | I _{FSM} | 1.0 | A |
| Power Dissipation | P _d | 150 | mW |
| Thermal Resistance, Junction to Ambient Air | R _{θJA} | 667 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +125 | °C |

Electrical Characteristics @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Conditions |
|---------------------------|--------------------|-----|-----|--------------|----------|--|
| Reverse Breakdown Voltage | V _{(BR)R} | 40 | — | — | V | I _R = 10μA |
| Forward Voltage Drop | V _F | — | — | 0.37 0.60 | V | I _F = 20mA I _F = 200mA |
| Peak Reverse Current | I _R | — | — | 5 1 | μA μA | V _R = 30V V _R = 10V |
| Total Capacitance | C _T | — | 50 | — | pF | V _R = 0V, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | 10 | — | ns | I _F = I _R = 200mA, I _{rr} = 0.1 x I _R , R _L = 100Ω |

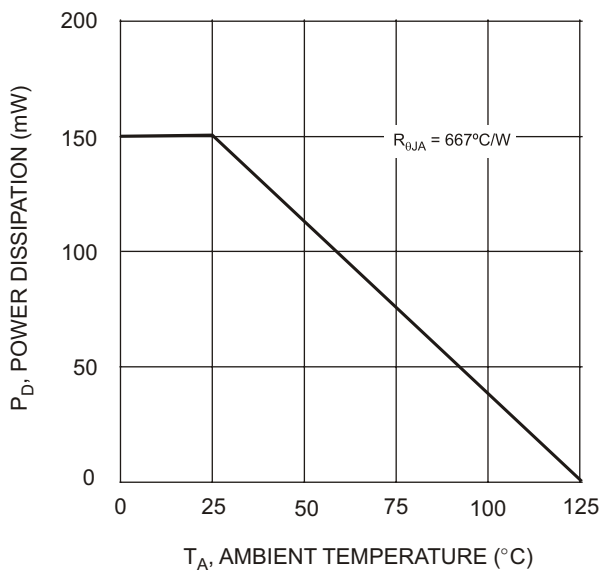


Fig. 1 Derating Curve

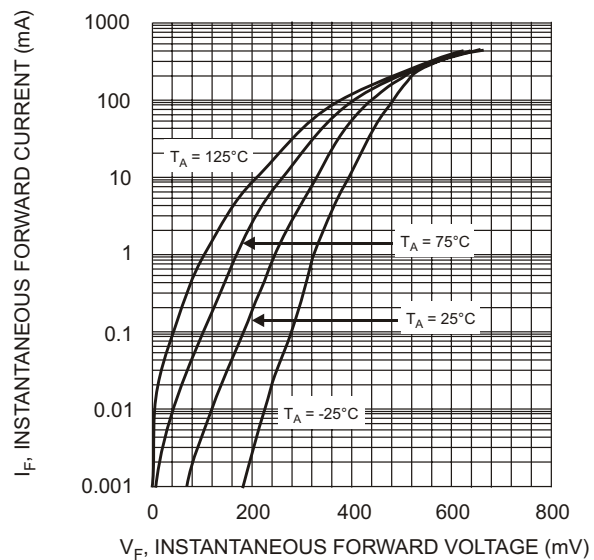


Fig. 2 Typical Forward Characteristics

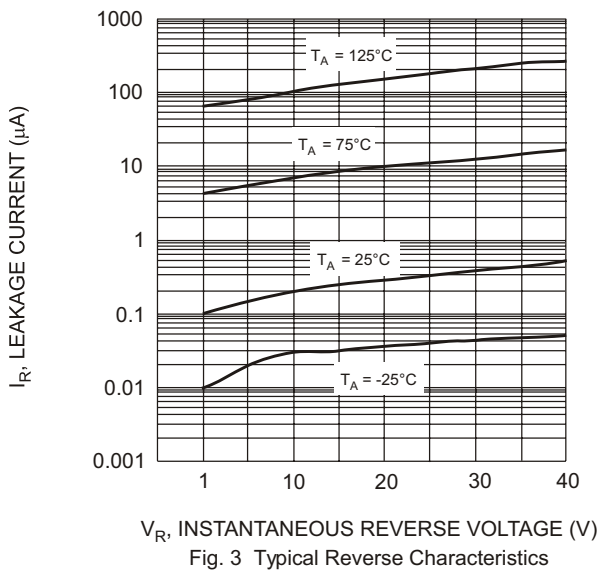


Fig. 3 Typical Reverse Characteristics

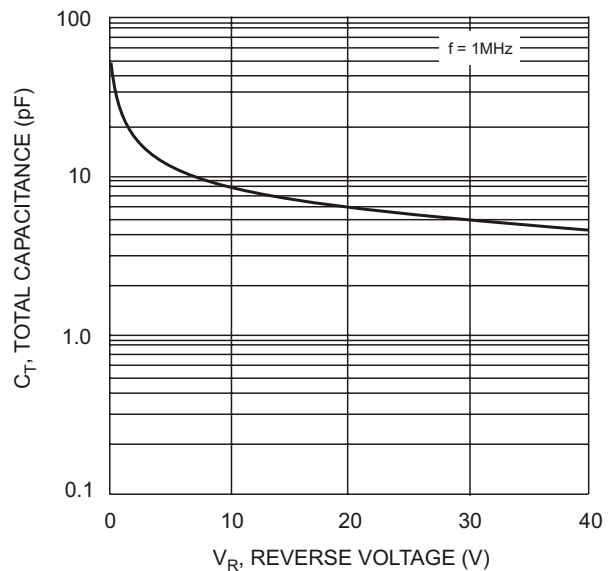


Fig. 4 Typ. Total Capacitance vs Reverse Voltage