



High Speed Switching Diode



Forward Current - 300 mA
Reverse Voltage - 100 V

Description

- Power Dissipation of 200mW
- Fast Switching Device (TRR<4nS)
- High Stability and High Reliability
- Low Reverse Leakage

Mechanical Data

- Case: SOD323 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Ordering Information

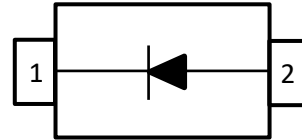
- Package :SOD323
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel

Package Outline

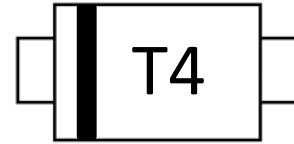


SOD323 Top View

Device Schematic & PIN Configuration



Product Type Marking Code



"T4" = Product Type Marking Code

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Absolute Ratings

| Parameter | Symbol | Value | Unit |
|---|-----------------|-------------|-------|
| Reverse Voltage | V_{RM} | 100 | V |
| Peak Forward Surge Current @ $t_p=1\mu s$ | I_{FSM} | 2 | A |
| Non-Repetitive Peak Forward Current | I_{FM} | 300 | mA |
| Average Rectified Current | I_o | 150 | mA |
| Power Dissipation | P_D | 200 | mW |
| Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 625 | ° C/W |
| Junction Temperature | T_J | 125 | ° C |
| Storage Temperature Range | T_S | -55 to +150 | ° C |

Electrical Characteristics

| Parameter | Test Conditions | Symbol | Min | Typ | Max | Unit |
|-----------------------|---|----------|-----|-----|------|------|
| Breakdown Voltage | $I_R=100\mu A$ | V_{BR} | 100 | - | - | V |
| | $I_R=5\mu A$ | | 75 | - | - | |
| Reverse Current | $V_R=20V$ | I_R | - | - | 25 | nA |
| | $V_R=75V$ | | - | - | 1 | uA |
| Forward Voltage | $I_F=1mA$ | V_F | - | - | 0.71 | V |
| | $I_F=10mA$ | | - | - | 0.85 | |
| | $I_F=50mA$ | | - | - | 1.00 | |
| | $I_F=150mA$ | | - | - | 1.25 | |
| Reverse Recovery Time | $I_F=I_R=10mA$ $I_{RR}=0.1*I_R, R_L=100\Omega$ | T_{RR} | - | - | 4 | ns |
| Junction Capacitance | $V_R = 0V, F = 1MHz$ | C_D | - | - | 2 | pF |



Rating and Characteristic Curves

FIG.1 - Forward Characteristics

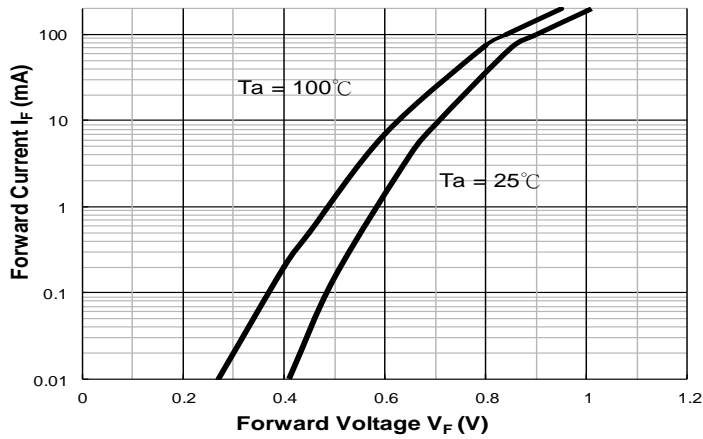


FIG.2 - Reverse Characteristics

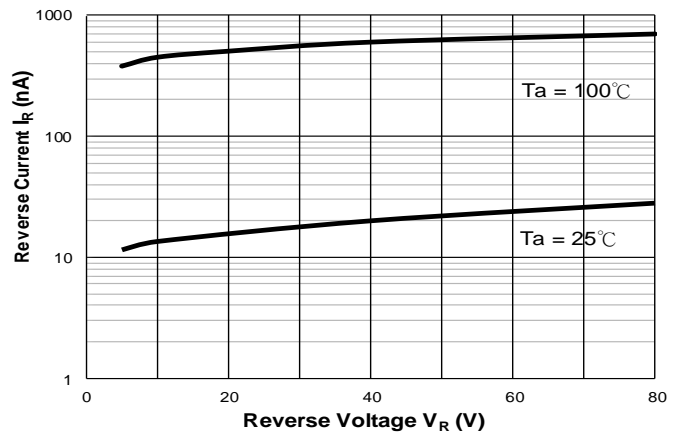


FIG.3 - Power Derating Curve

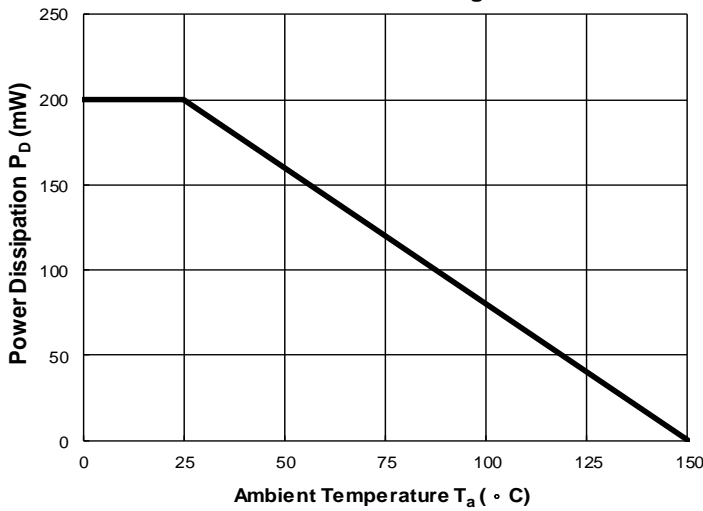
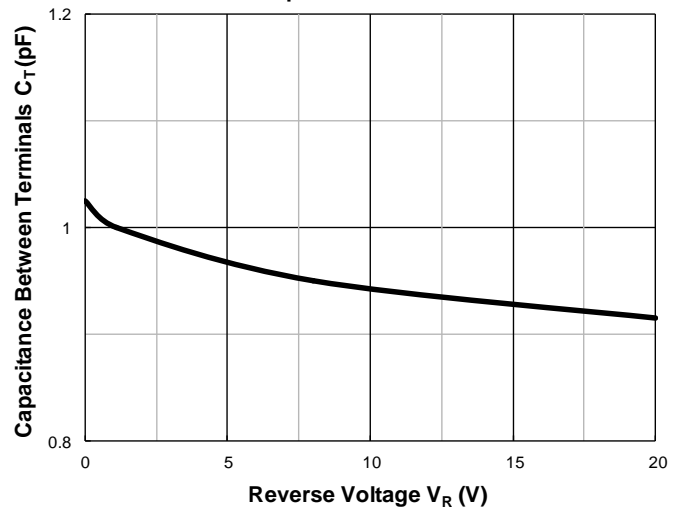
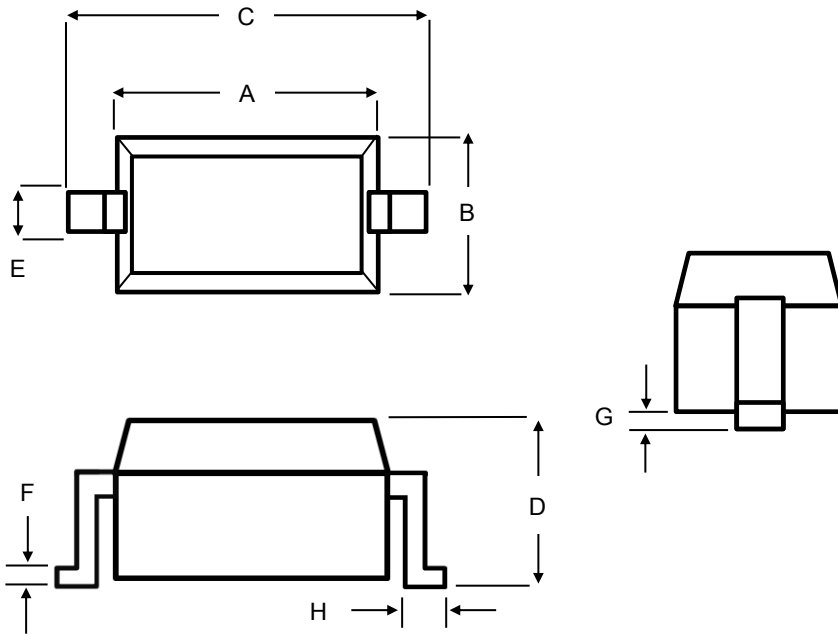


FIG.4 - Capacitance Characteristics



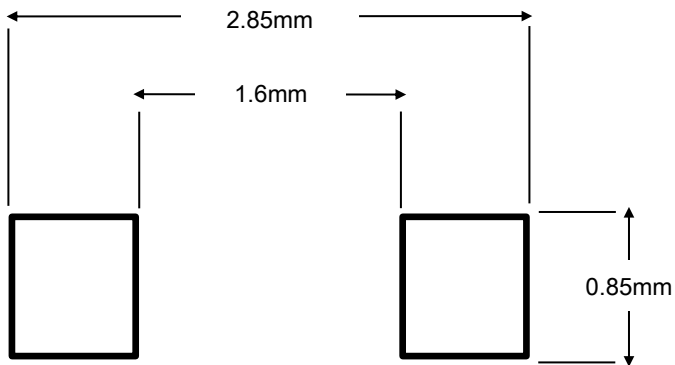


Package Outline Dimensions



| SOD323 Package | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 1.6 | 1.8 |
| B | 1.2 | 1.4 |
| C | 2.5 | 2.7 |
| D | - | 1.0 |
| E | 0.25 | 0.35 |
| F | 0.08 | 0.15 |
| G | - | 0.1 |
| H | 0.25 | 0.4 |
| All Dimensions in mm | | |

Suggested Soldering Pad Layout



Note:

- 1.The pad layout is for reference purposes only.
- 2.General tolerance $\pm 0.05\text{mm}$



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