



Surface Mount Schottky Barrier Diode



Forward Current - 200 mA
Reverse Voltage - 30 V

Description

- Low Power Loss, High Efficiency
- Low Forward Voltage Schottky Rectifier
- High Current Capability

Mechanical Data

- Case: SOD123 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

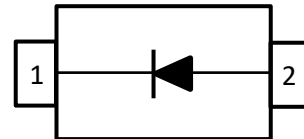
- Package :SOD123
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel

Package Outline

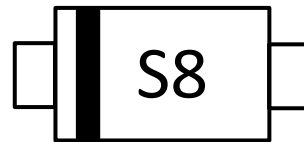


SOD123 Top View

Device Schematic & PIN Configuration



Product Type Marking Code



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

Absolute Ratings

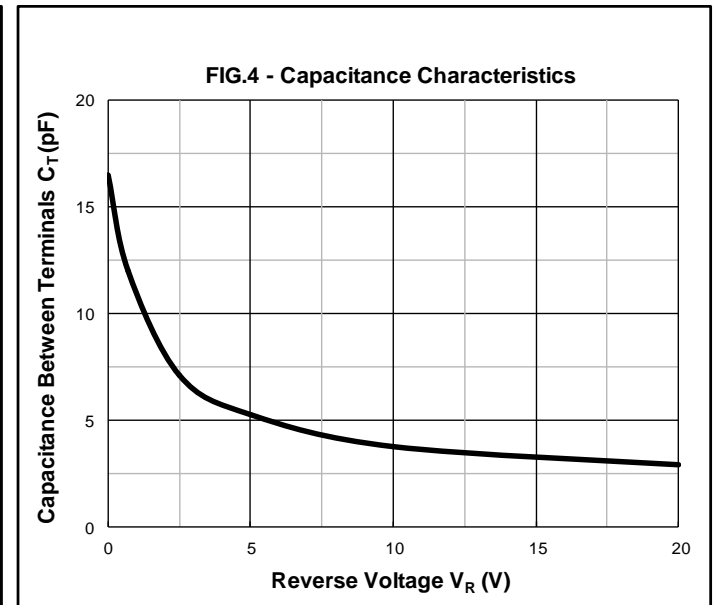
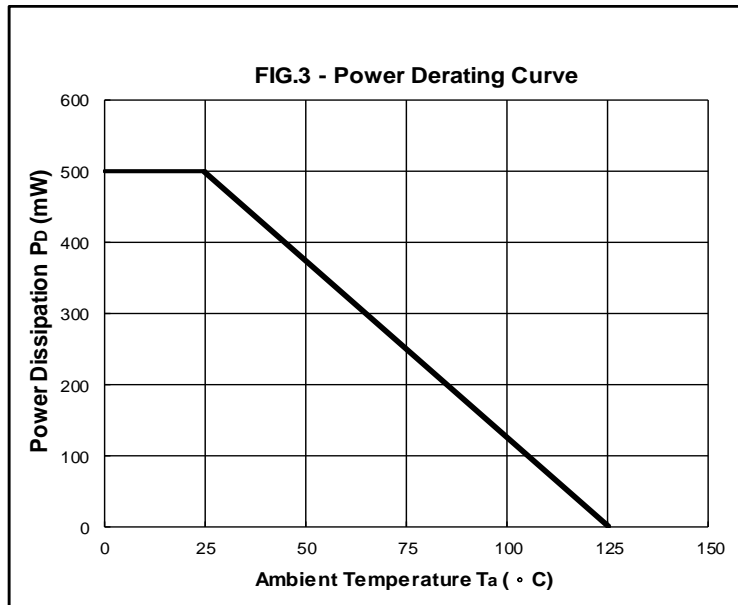
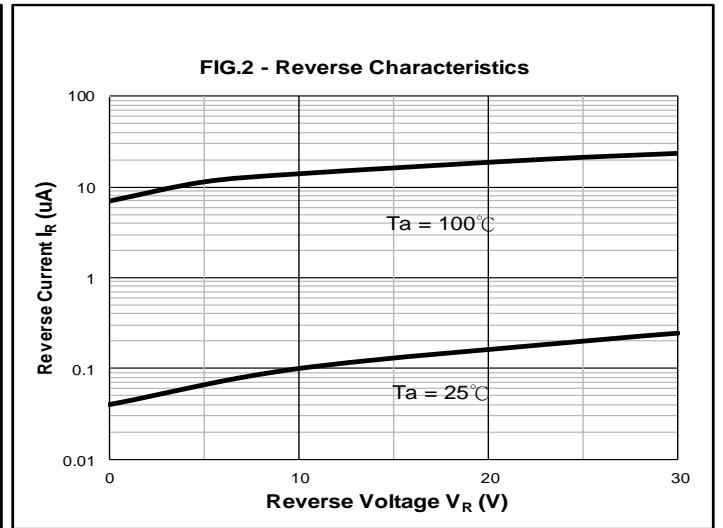
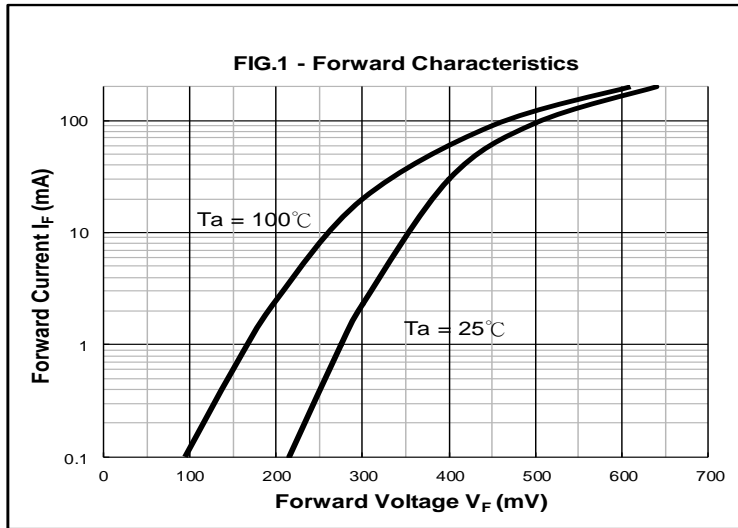
| Parameter | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Repetitive Peak Reverse Voltage | V _{RRM} | 30 | V |
| RMS Voltage | V _{RMS} | 21 | V |
| DC Blocking Voltage | V _{DC} | 30 | V |
| Forward Rectified Current | I _{FM} | 200 | mA |
| Repetitive Peak Forward Current @ t < 1.0s | I _{FRM} | 500 | mA |
| Peak Forward Surge Current @ t = 8.3ms | I _{FSM} | 400 | mA |
| Power Dissipation | P _D | 500 | mW |
| Junction Temperature | T _J | 125 | °C |
| Storage Temperature Range | T _{STG} | -50 to +150 | °C |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 200 | °C/W |

Electrical Characteristics

| Parameter | Test Conditions | Symbol | Min | Typ | Max | Unit |
|-----------------------|--|-----------------|-----|-----|------|------|
| Reverse Voltage | I _R =10uA | V _{BR} | 30 | - | - | V |
| Reverse Current | V _R =25V | I _R | - | - | 0.5 | uA |
| Forward Voltage | I _F =200mA | V _F | - | - | 1.00 | V |
| | I _F =15mA | | - | - | 0.45 | |
| | I _F =2mA | | - | - | 0.33 | |
| Junction Capacitance | V _R = 1V, F = 1MHz | C _J | - | - | 10 | pF |
| Reverse Recovery time | I _F =I _R =10mA I _{rr} =0.1xI _R , R _L =100Ω | T _{RR} | - | - | 5 | ns |

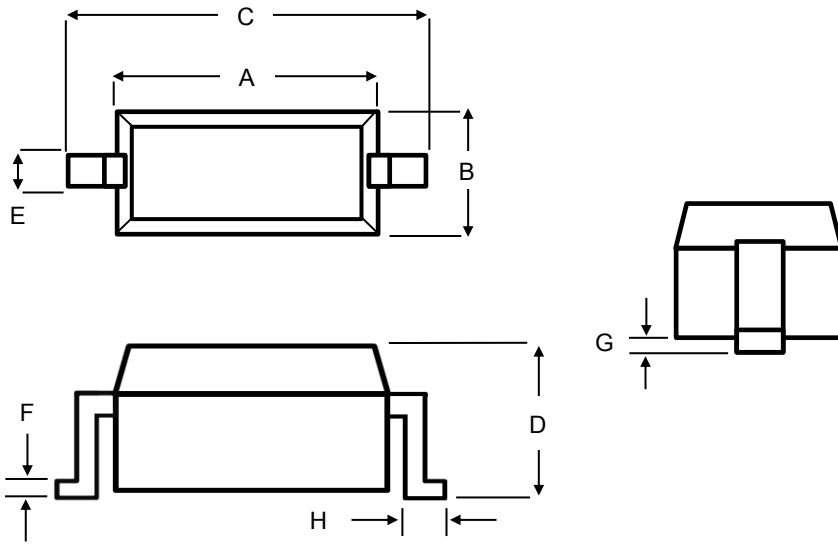


Rating and Characteristic Curves



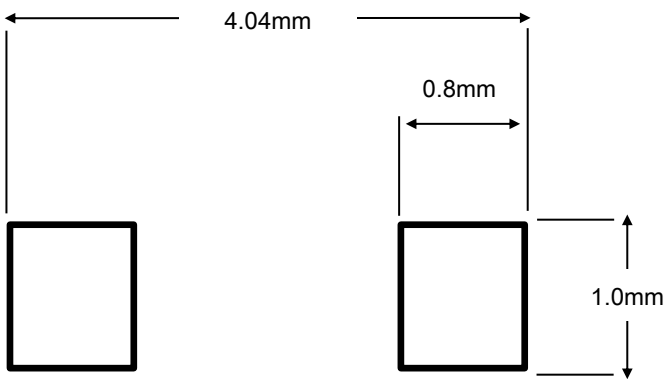


Package Outline Dimensions



| SOD123 Package | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 2.60 | 2.80 |
| B | 1.50 | 1.70 |
| C | 3.55 | 3.85 |
| D | 1.05 | 1.25 |
| E | 0.45 | 0.65 |
| F | 0.08 | 0.15 |
| G | - | 0.10 |
| H | 0.25 | 0.45 |
| 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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