

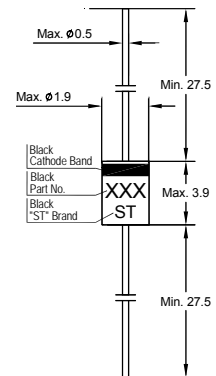
# 1SS108

## SILICON SCHOTTKY BARRIER DIODE

for various detector, high speed switching

### Features

- Detection efficiency is very good.
- Small temperature coefficient.
- High reliability with glass seal.



Glass Case DO-35  
Dimensions in mm

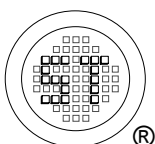
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                 | Symbol    | Value         | Unit             |
|---------------------------|-----------|---------------|------------------|
| Reverse Voltage           | $V_R$     | 30            | V                |
| Average Forward Current   | $I_O$     | 15            | mA               |
| Junction Temperature      | $T_J$     | 125           | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{stg}$ | - 55 to + 125 | $^\circ\text{C}$ |

### Electrical Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter  | Symbol | Min. | Max. | Unit          |
|--|--------|------|------|---------------|
| Forward Current<br>at $V_F = 1\text{ V}$   | $I_F$  | 3    | -    | mA            |
| Reverse Current<br>at $V_R = 10\text{ V}$  | $I_R$  | -    | 100  | $\mu\text{A}$ |
| Capacitance<br>at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$  | $C$    | -    | 3    | pF            |
| Rectifier Efficiency<br>at $V_{in} = 2\text{ V}_{rms}$ , $f = 40\text{ MHz}$ , $R_L = 5\text{ K}\Omega$ , $C_L = 20\text{ pF}$ | $\eta$ | 70   | -    | %             |
| ESD Capability <sup>1)</sup><br>at $C = 200\text{ pF}$ , both forward and reverse direction 1 pulse.                           | -      | 70   | -    | V             |

<sup>1)</sup> Failure criterion:  $I_R \geq 200\text{ }\mu\text{A}$  at  $V_R = 10\text{ V}$



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506088

Dated : 20/06/2007

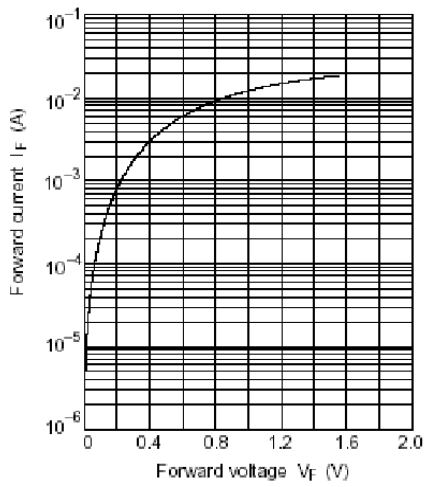


Fig.1 Forward current Vs. Forward voltage

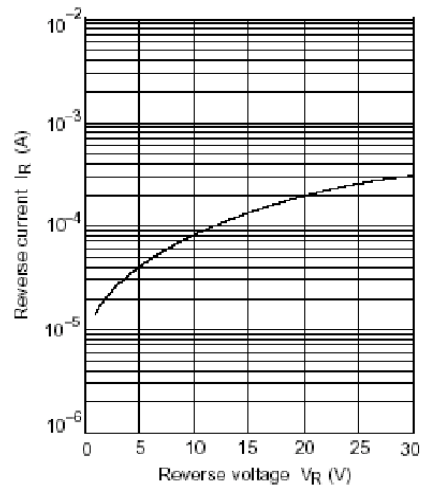


Fig.2 Reverse current Vs. Reverse voltage

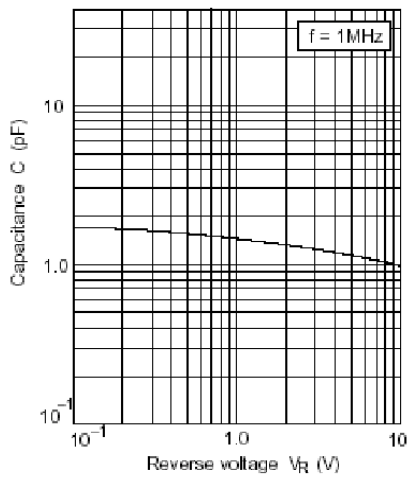


Fig.3 Capacitance Vs. Reverse voltage

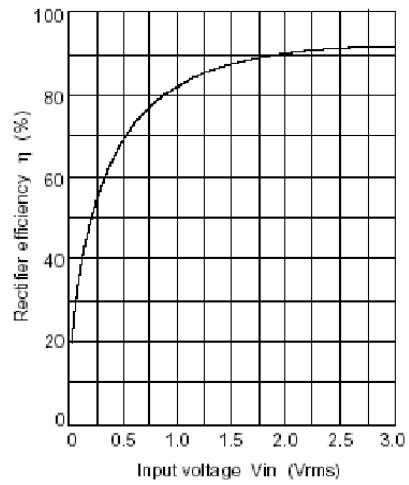
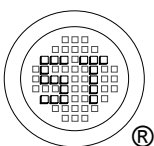


Fig.4 Rectifier efficiency Vs. Input voltage



**SEMTECH ELECTRONICS LTD.**  
 (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

