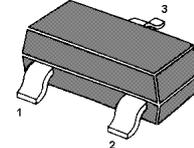
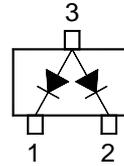


1SS181

SILICON EPITAXIAL PLANAR DIODE

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



Marking Code: **A1**
SOT-23 Plastic Package

Applications

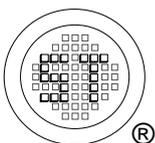
- Ultra high speed switching application

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

| Parameter | Symbol | Value | Unit |
|------------------------------|-----------|---------------|------------------|
| Maximum Peak Reverse Voltage | V_{RM} | 85 | V |
| Reverse Voltage | V_R | 80 | V |
| Average Forward Current | I_O | 100 | mA |
| Maximum Peak Forward Current | I_{FM} | 300 | mA |
| Surge Current (10 ms) | I_{FSM} | 2 | A |
| Power Dissipation | P_{tot} | 150 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Max. | Unit |
|---|----------|------------|---------------|
| Forward Voltage at $I_F = 100\text{ mA}$ | V_F | 1.2 | V |
| Reverse Current at $V_R = 30\text{ V}$ at $V_R = 80\text{ V}$ | I_R | 0.1 0.5 | μA |
| Total Capacitance at $V_R = 0$, $f = 1\text{ MHz}$ | C_T | 4 | pF |
| Reverse Recovery Time at $I_F = 10\text{ mA}$ | t_{rr} | 4 | ns |



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. 71116



ISO 9001:2000
Certificate No. 0506098

Dated : 10/10/2008

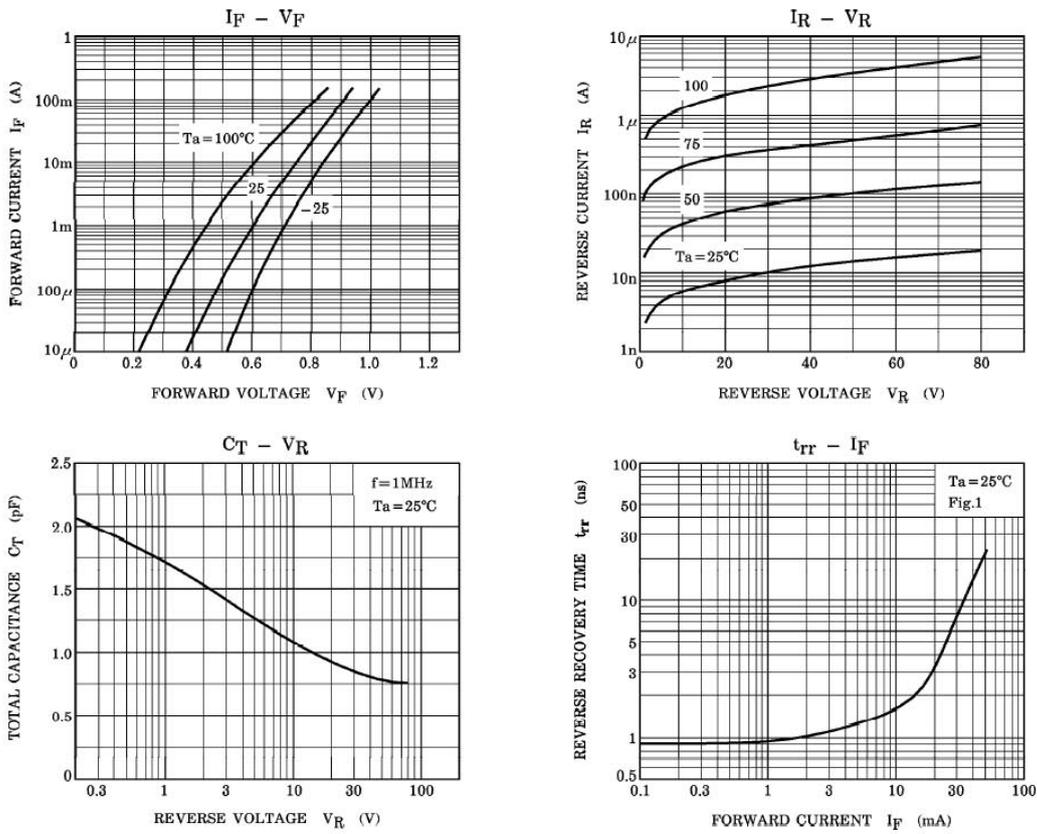
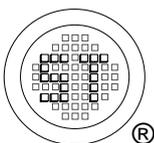
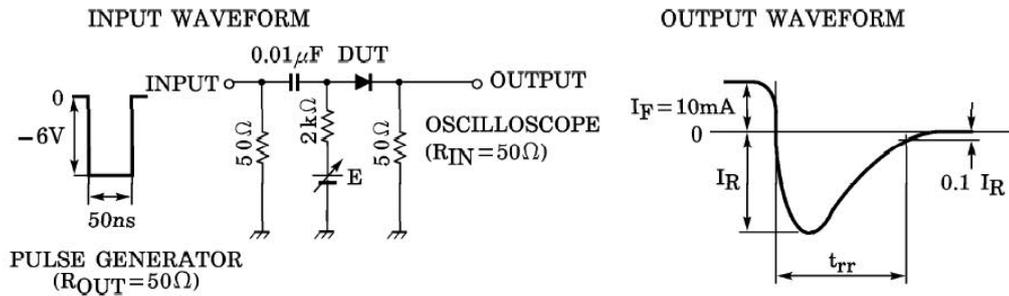


Fig.1 Reverse recovery time (t_{rr}) test circuit



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