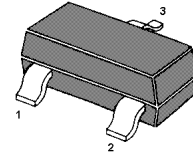
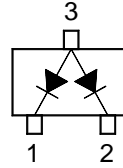


1SS181

Silicon Epitaxial Planar Switching Diode

Features

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



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

Applications

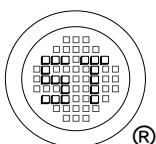
- Ultra high speed switching application

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 Rectified Forward Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current (10 ms)	I_{FSM}	2	A
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

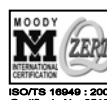
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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.

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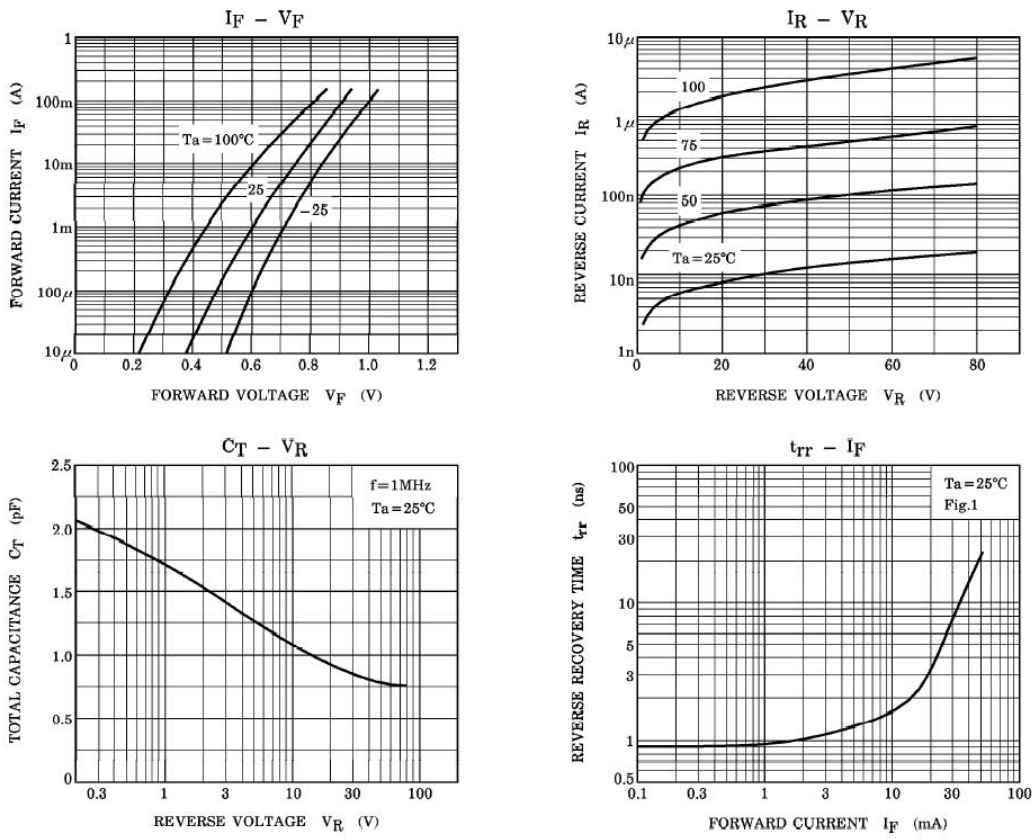
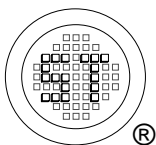
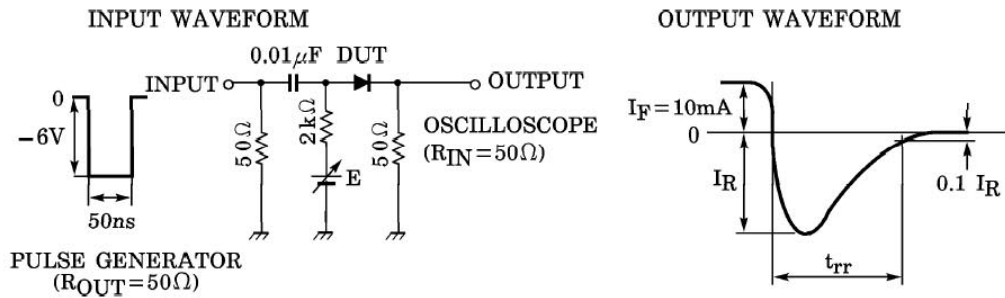


Fig.1 Reverse recovery time (t_{rr}) test circuit



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