

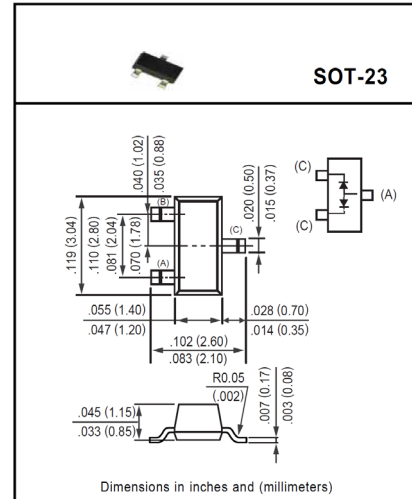


1SS181 SOT-23 Switching Diode

FEATURES

- Low forward voltage : $V_{F(3)}=0.9V(\text{typ.})$
- Fast reverse recovery time : $t_{rr}=1.6ns(\text{typ.})$
- AEC-Q101 qualified

MARKING: A1



Maximum Ratings @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	85	V
DC Blocking Voltage	V_R	80	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	100	mA
Power Dissipation	P_D	150	mW
Junction temperature	T_J	150	$^\circ\text{C}$
Operating Temperature	T_{opr}	-40-125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55-150	$^\circ\text{C}$

Electrical Characteristics @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	80			V	$I_R=100\mu\text{A}$
Forward voltage	V_{F1}		0.60		V	$I_F=1\text{mA}$
	V_{F2}		0.72		V	$I_F=10\text{mA}$
	V_{F3}		0.9	1.2	V	$I_F=100\text{mA}$
Reverse current	I_{R1}			0.1	μA	$V_R=30\text{V}$
	I_{R2}			0.5	μA	$V_R=80\text{V}$
Capacitance between terminals	C_T		0.9	3.0	pF	$V_R=0, f=1\text{MHz}$
Reverse recovery time	t_{rr}		1.6	4.0	ns	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R$

Typical Characteristics

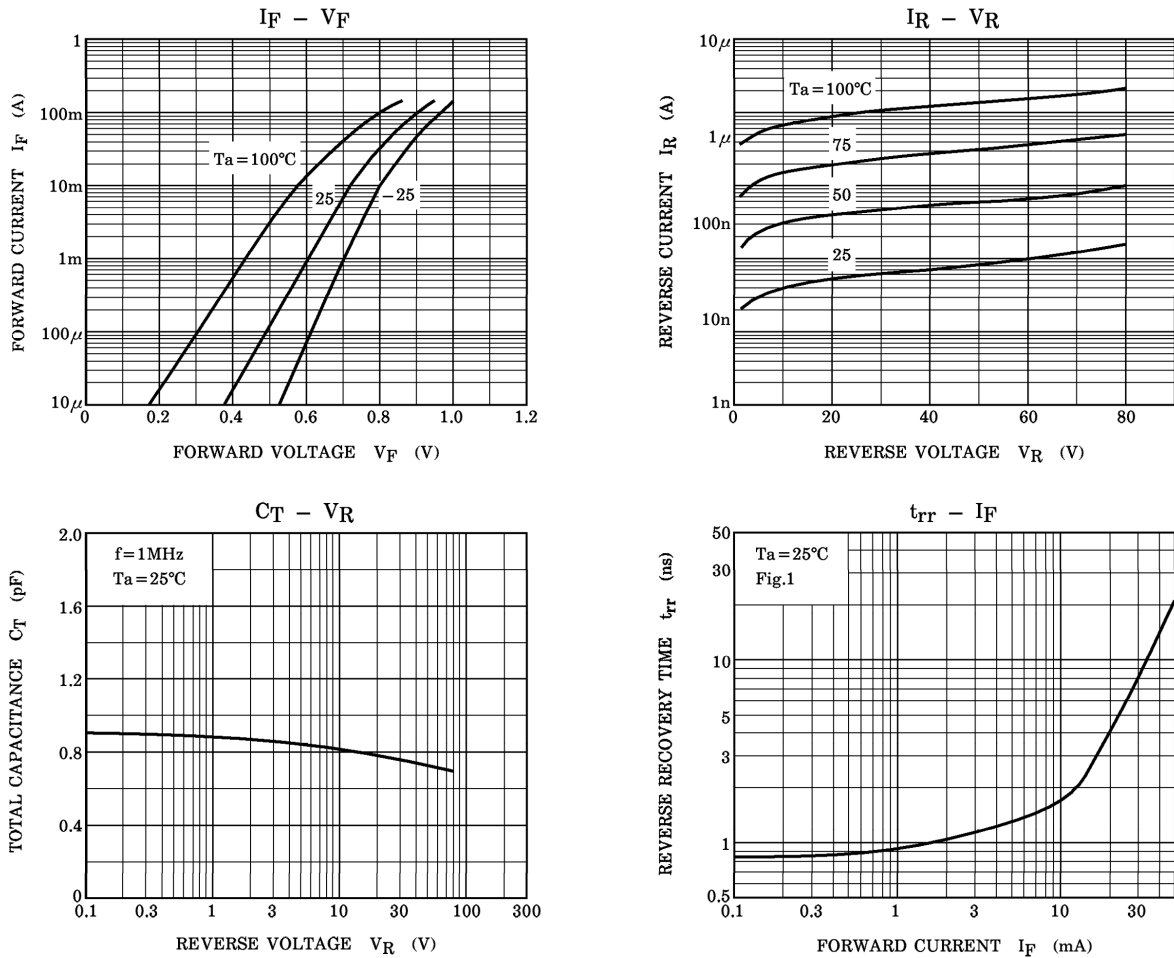


Fig.1 Reverse recovery time (t_{rr}) test circuit

