

1SS133

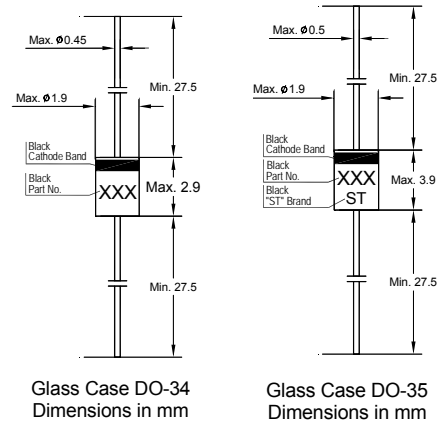
Silicon Epitaxial Planar Switching Diode

Features

- Glass sealed envelope
- High speed
- High reliability

Applications

- High-speed switching



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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	90	V
DC Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	130	mA
Peak Forward Current	I_{FM}	400	mA
Surge Forward Current at $t < 1$ s	I_{FSM}	600	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 175	$^\circ\text{C}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100$ mA	V_F	1.2	V
Reverse Current at $V_R = 80$ V	I_R	0.5	μA
Capacitance between Terminals at $V_R = 0.5$ V, $f = 1$ MHz	C_T	2	pF
Reverse Recovery Time at $I_F = 10$ mA, $V_R = 6$ V, $R_L = 50 \Omega$	t_{rr}	4	ns

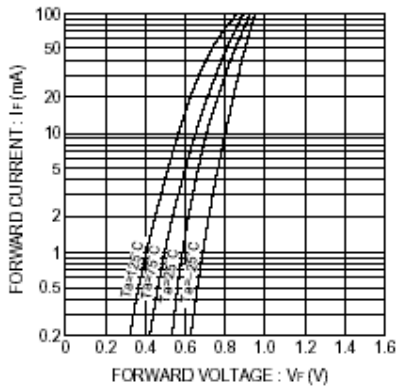


Fig. 1 Forward characteristics

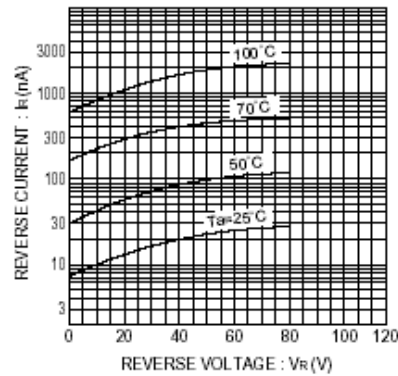


Fig. 2 Reverse characteristics

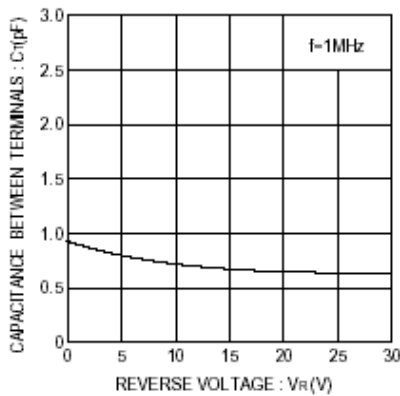


Fig. 3 Capacitance between terminals characteristics

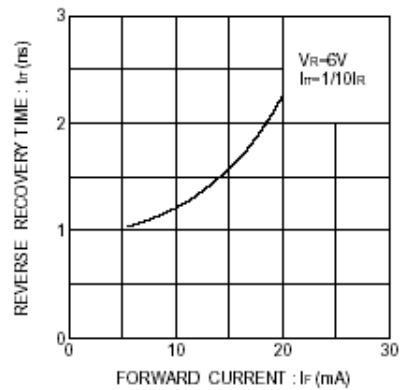


Fig. 4 Reverse recovery time characteristics

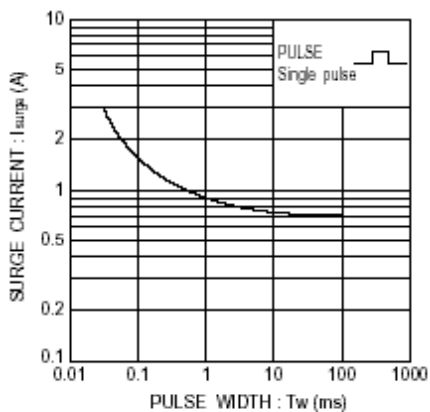


Fig.5 Surge current characteristics

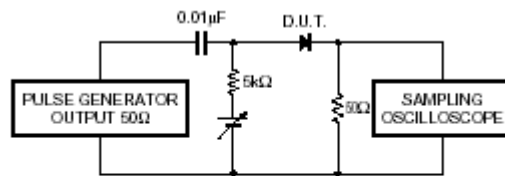


Fig. 6 Reverse recovery time (t_r) measurement circuit