

Diodes

Switching diode

1SS133

●Applications

High speed switching

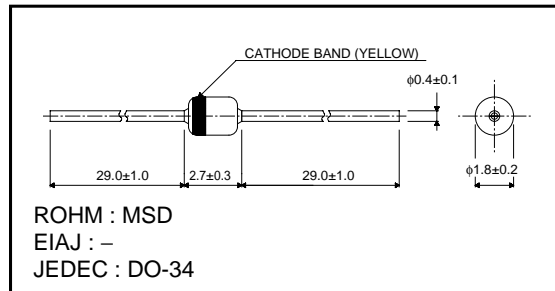
●Features

- 1) Glass sealed envelope. (MSD)
- 2) High speed. ($t_{rr}=1.2\text{ns Typ.}$)
- 3) High reliability.

●Construction

Silicon epitaxial planar

●External dimensions (Units : mm)

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	90	V
DC reverse voltage	V_R	80	V
Peak forward current	I_{FM}	400	mA
Mean rectifying current	I_o	130	mA
Surge current (1s)	I_{surge}	600	mA
Power dissipation	P	300	mW
Junction temperature	T_j	175	$^\circ\text{C}$
Storage temperature	T_{stg}	-65~+175	$^\circ\text{C}$

●Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	1.2	V	$I_F=100\text{mA}$
Reverse current	I_R	-	-	0.5	μA	$V_R=80\text{V}$
Capacitance between terminals	C_T	-	-	2	pF	$V_R=0.5\text{V}$, $f=1\text{MHz}$
Reverse recovery time	t_{rr}	-	-	4	ns	$V_R=6\text{V}$, $I_F=10\text{mA}$, $R_L=50\Omega$

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●Electrical characteristics curves (Ta=25°C)

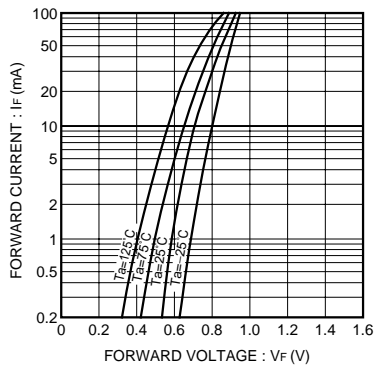


Fig. 1 Forward characteristics

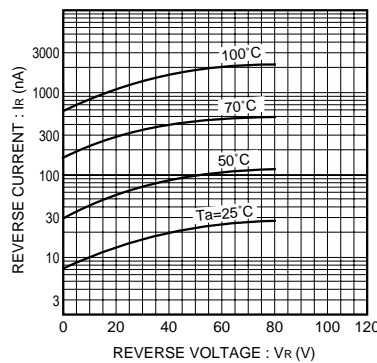


Fig. 2 Reverse characteristics

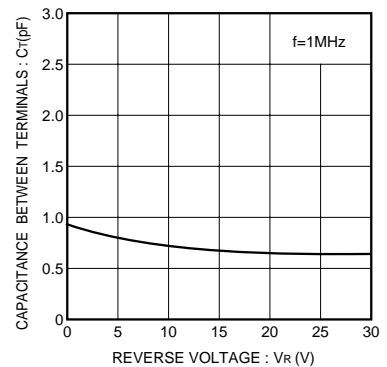


Fig. 3 Capacitance between terminals characteristics

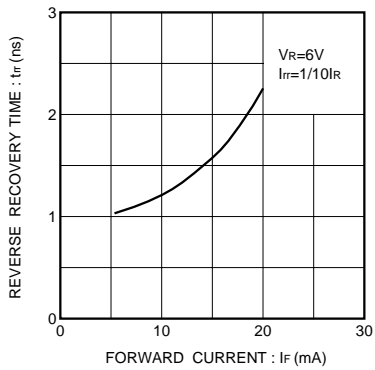


Fig. 4 Reverse recovery time characteristics

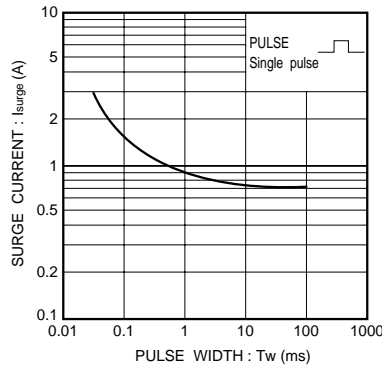


Fig. 5 Surge current characteristics

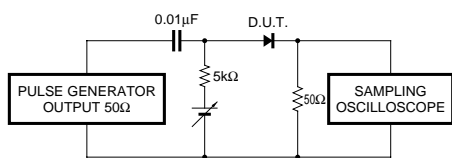


Fig. 6 Reverse recovery time (tr) measurement circuit