

High-Speed Switching Diode

1SS355

• Applications

High speed switching

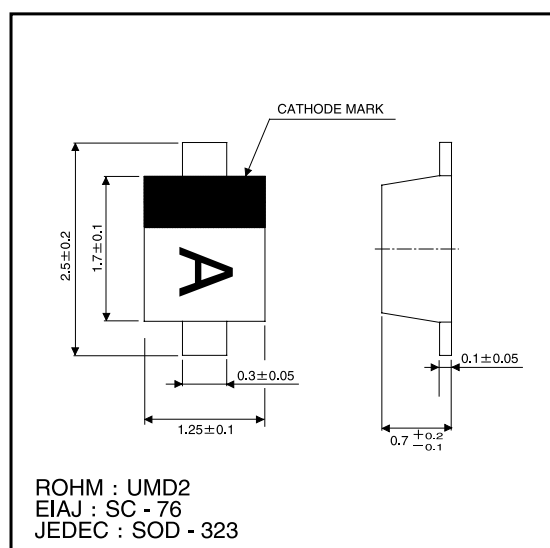
• Features

- 1) Small surface mounting type.(UMD2)
- 2) High Speed.($t_{tr} = 1.2\text{ns}$ Typ.)
- 3) High reliability with high surge current handling capability.

• Construction

Silicon epitaxial planar

• External dimensions (Unit : mm)



• Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	90	V
DC reverse voltage	V_R	80	V
Peak forward current	I_{FM}	225	mA
Mean rectifying current	I_o	100	mA
Surge current (1S)	I_{surge}	500	mA
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 ~ +125	°C

• Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward voltage	V_F	-	0.94	1.2	V	$I_F=100\text{mA}$
Reverse current	I_R	-	0.03	0.1	μA	$V_R=80\text{V}$
Capacitance between terminals	C_T	-	0.72	3.0	pF	$V_R=0.5\text{V}$, $f=1\text{MHz}$
Reverse recovery time	t_{rr}	-	1.2	4	ns	$V_R=6\text{V}$, $I_F=10\text{mA}$, $R_L=100\Omega$

Diodes

- Electrical characteristic curve ($T_a=25^\circ\text{C}$ unless specified otherwise)

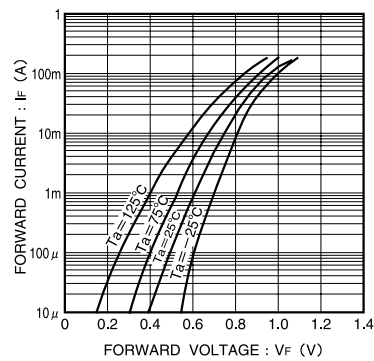


Fig.1 Forward characteristics

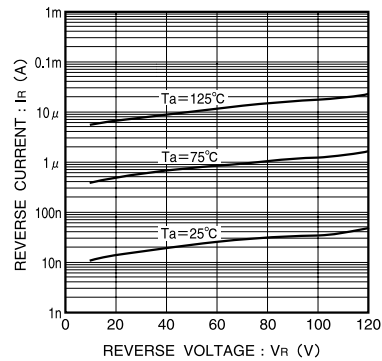


Fig.2 Reverse characteristics

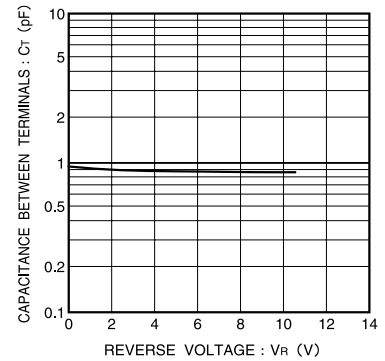


Fig.3 Capacitance between terminals characteristics

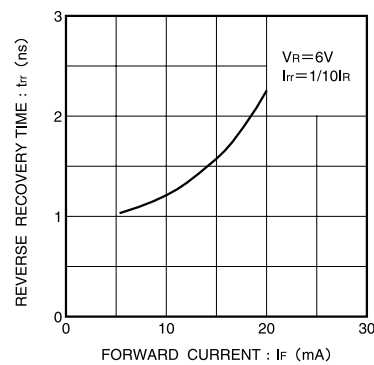


Fig.4 Reverse recovery time characteristics

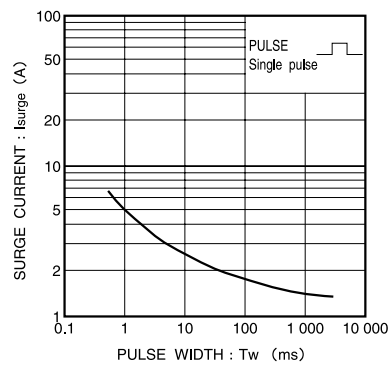
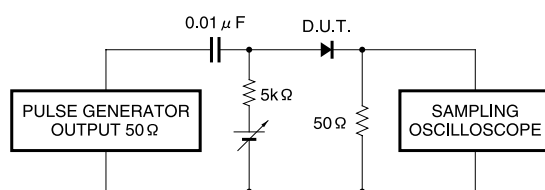


Fig.5 Surge current characteristics

Fig.6 Reverse recovery time(T_r) measurement circuit