

High-speed switching diode

1SS400

New

●Applications

High speed switching

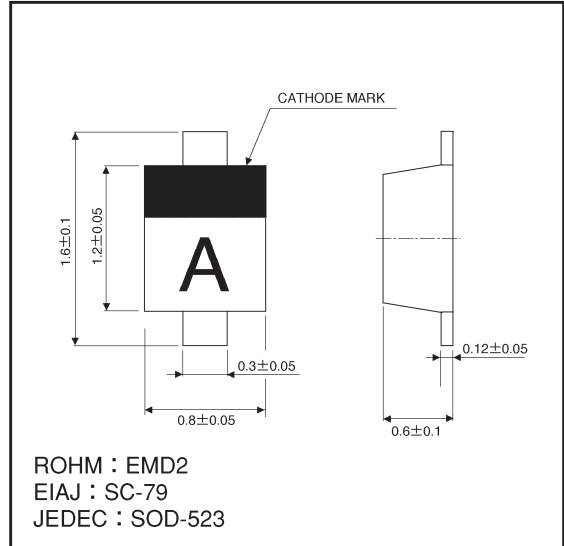
●Features

- 1) Extremely small surface mounting type. (EMD2)
- 2) High speed. (typical recovery time = 1.2ns)
- 3) Highly reliable.

●Construction

Silicon epitaxial planar

●External dimensions (Units: 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	Conditions
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	$V_R=6\text{V}$, $I_F=10\text{mA}$, $R_L=100\Omega$

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

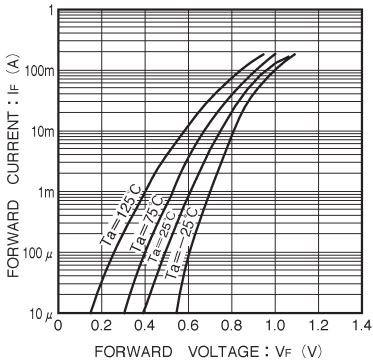


Fig. 1 Forward characteristics

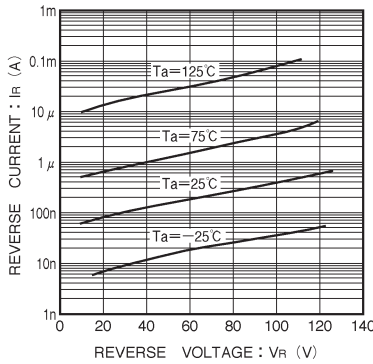


Fig. 2 Reverse characteristics

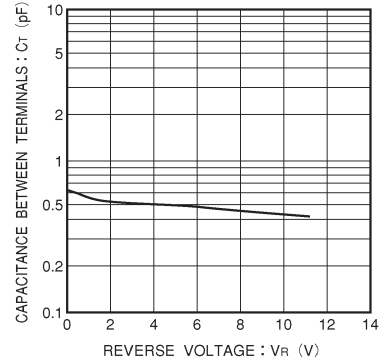


Fig. 3 Capacitance between terminals characteristics

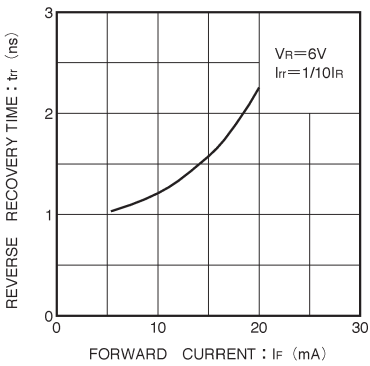


Fig. 4 Reverse recovery time characteristics

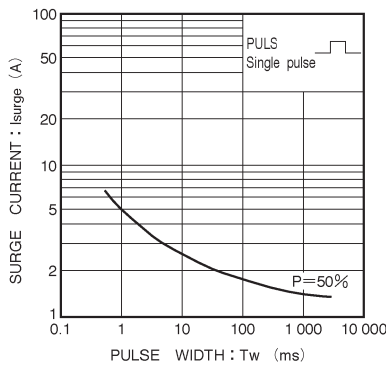


Fig. 5 Surge current characteristics

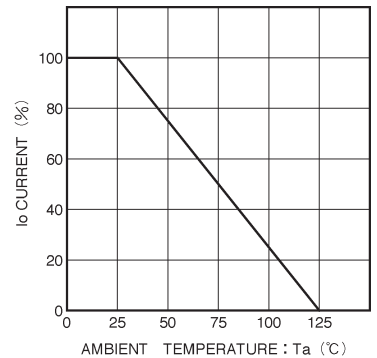


Fig. 6 Derating curve (mounting on glass epoxy PCBs)

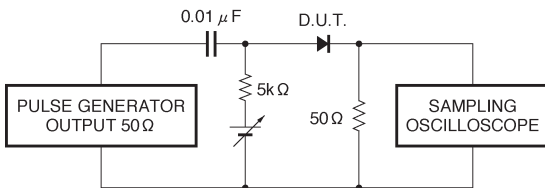


Fig. 7 Reverse recovery time (t_{rr}) measurement circuit