



1SS400

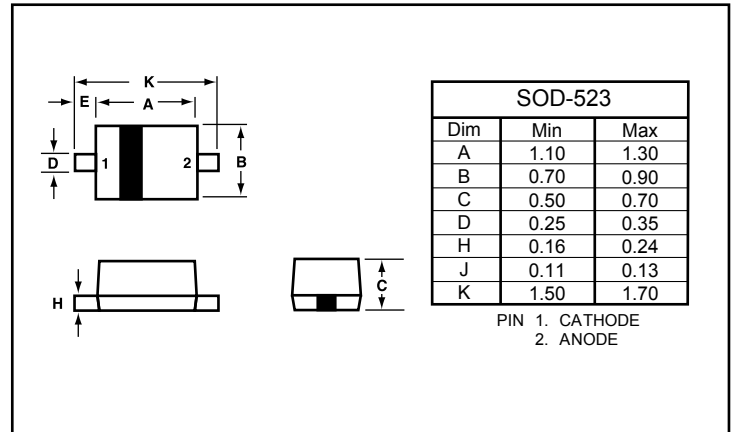
SURFACE MOUNT FAST SWITCHING DIODE

Features

- Extremely fast reverse recovery time to reduce switching losses
- Very low capacitance for reduced insertion losses
- Reverse voltage rating of 80V
- Also available in lead-free plating (100% matte tin finish)

APPLICATION

- Mobile phones and accessories
- Hand-held computers
- High Speed Switching Applications



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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	90	V
DC Reverse voltage	V_R	80	V
Continuous forward current	I_F	225	mA
Surge current	I_{FSM}	0.5	A
Total power dissipation	P_{tot}	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55-150	$^\circ\text{C}$

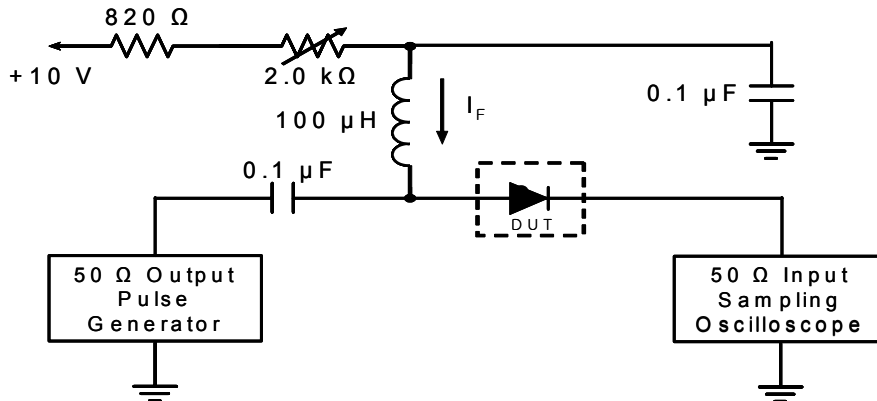
Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F			1.2	V	$I_F=100\text{mA}$
Reverse current	I_R			0.1	μA	$V_R=80\text{V}$
Diode capacitance	C_d		0.72	2.0	pF	$V_R=0.5\text{V}, f=1\text{MHz}$
Reverse recovery time	t_{rr}			4	ns	$V_R=6\text{V}, I_F=10\text{mA}, R_L=100\Omega$



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RATINGS AND CHARACTERISTIC CURVES



- Notes: 1. A 2.0kΩ variable resistor adjusted for a forward current (I_F) to 10mA
 2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

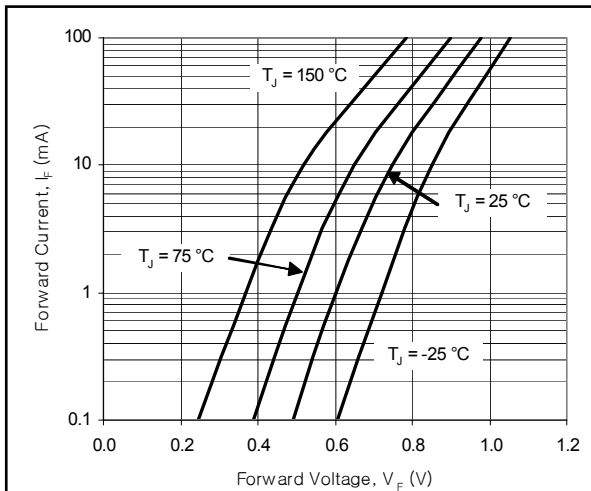


Fig. 2. Typical Forward Characteristics

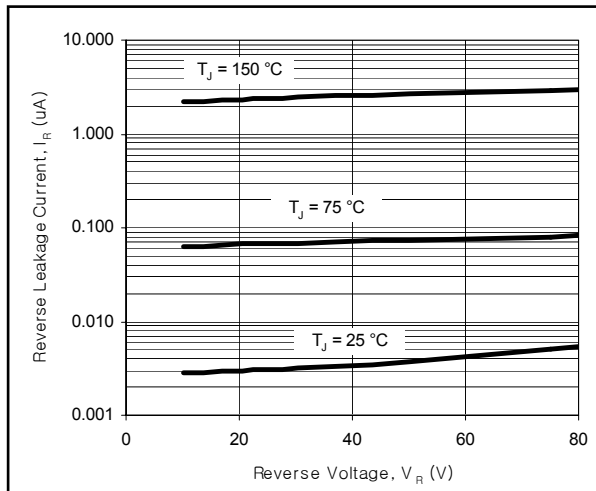


Fig. 3. Typical Reverse Characteristics

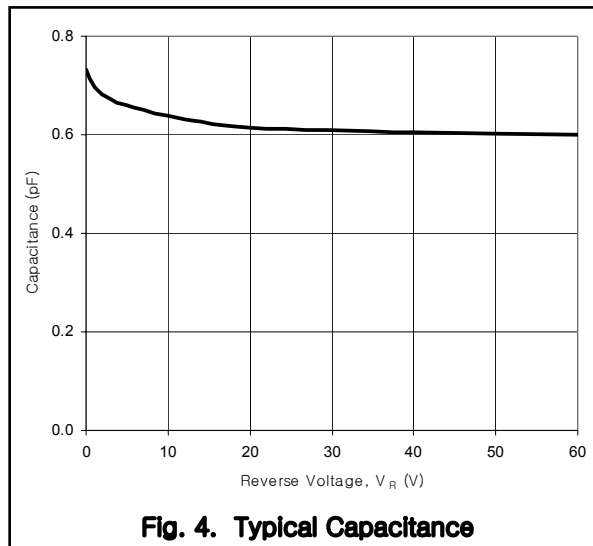


Fig. 4. Typical Capacitance