

Switching Diode

Features

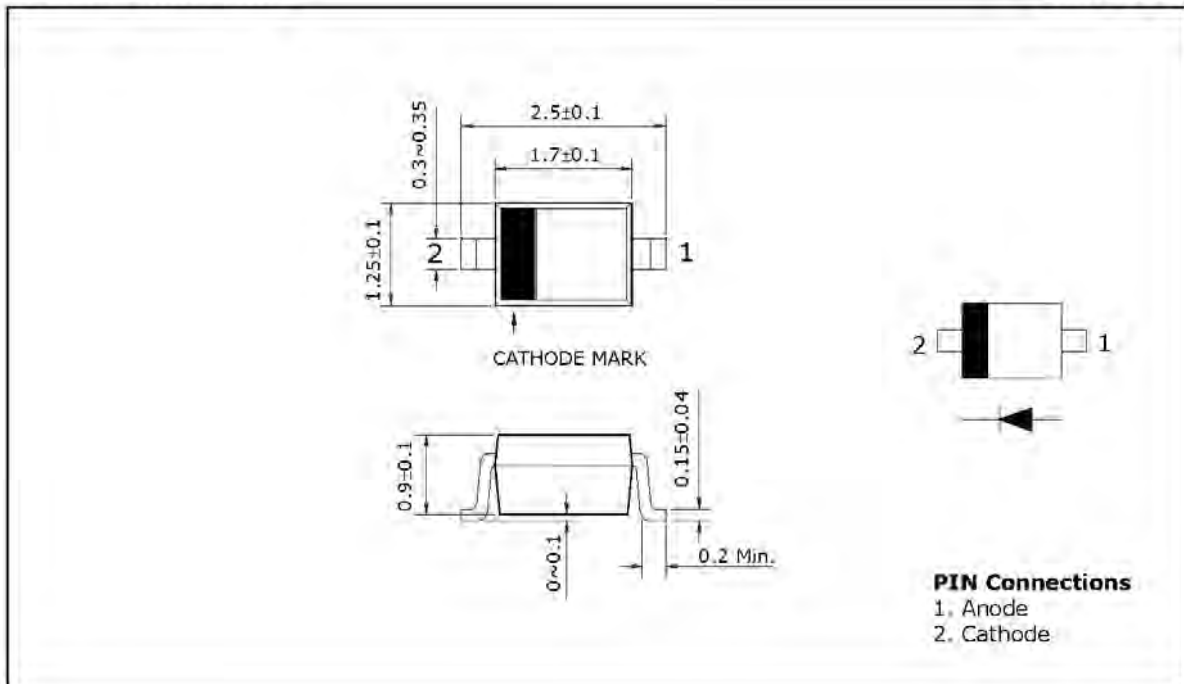
- Ultra high speed switching application
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

Ordering Information

Type No.	Marking	Package Code
SDS511	S1	SOD-323

Outline Dimensions

unit : mm

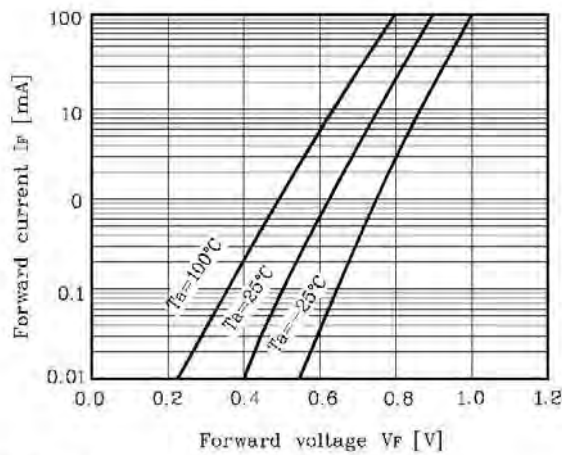
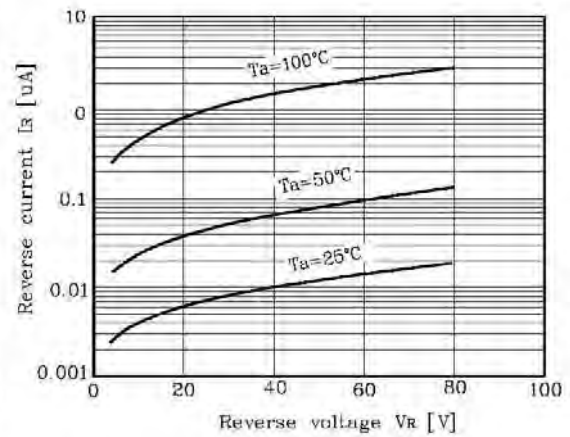
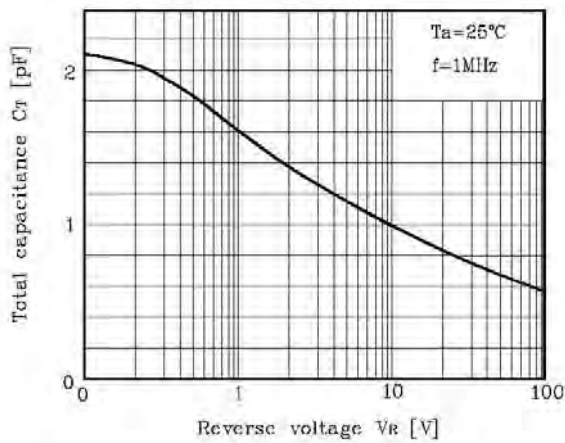
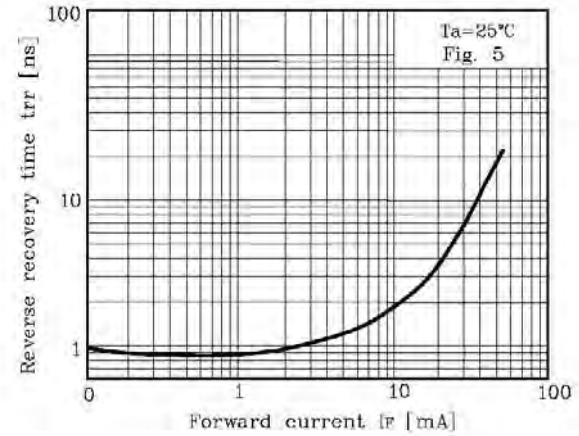


SDS511
Absolute maximum ratings
 $T_a=25^{\circ}\text{C}$

Characteristic	Symbol	Ratings	Unit
Maximum(peak) reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum(peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Surge current(10ms)	I_{FSM}	2	A
Power dissipation	P_D	150	mW
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55 ~ 150	$^{\circ}\text{C}$

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

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F(1)}$	$I_F=1\text{mA}$	-	0.6	-	V
	$V_{F(2)}$	$I_F=10\text{mA}$	-	0.7	-	
	$V_{F(3)}$	$I_F=100\text{mA}$	-	0.9	1.2	
Reverse current	I_R	$V_R=80\text{V}$	-	-	0.5	μA
Total capacitance	C_T	$V_R=0, f=1\text{MHz}$	-	2.2	4.0	pF
Reverse recovery time	t_{rr}	$I_F=10\text{mA}$	-	1.6	4.0	ns

Electrical Characteristic Curves
Fig. 1 I_F - V_F

Fig. 2 I_R - V_R

Fig. 3 C_T - V_R

Fig. 4 t_{rr} - I_F

Fig. 5 Reverse recovery time(t_{rr}) test circuit
