



Switching Diode

Features

• SMD package : SOT-323

• Low forward voltage : V_F=0.9V(Typ.)

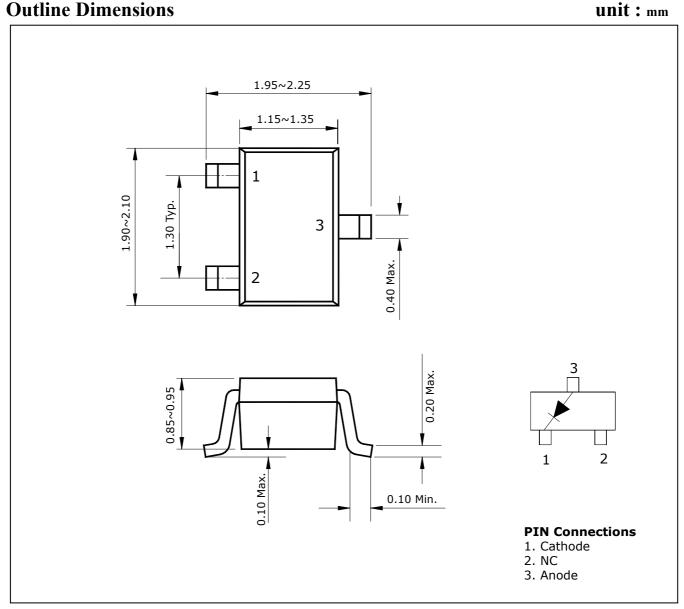
• Fast reverse recovery time : $t_{rr}=1.6 \text{ } \text{ns}(\text{Typ.})$

• Small total capacitance : $C_T=2.2 pF(Typ.)$

Ordering Information

Type No.	Marking	Package Code	
SDS152A	5E	SOT-323	

Outline Dimensions



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Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Rating	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V _R	80	V
Peak forward current	I_{FM}	300	mA
Average forward current	I _O	100	mA
Peak forward surge current(10ms)	I_{FSM}	2	А
Power dissipation	P _D	150	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

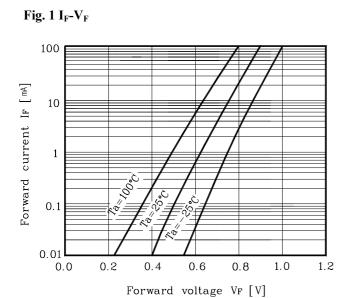
Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F(1)}$	$I_{\text{F}} = 1 \text{ mA}$	-	0.6	-	
	V _{F(2)}	$I_F = 10 \text{ mA}$	-	0.7	-	V
	V _{F(3)}	I_F =100 mA	-	0.9	1.2	
Reverse current	I_{R}	V _R =80V	-	-	0.5	μA
Total capacitance	C_T	$V_R=0$, $f=1$ MHz	-	2.2	4.0	pF
Reverse recovery time	t _{rr}	$I_F=10 \text{ mA}$ (Fig. 5)	-	1.6	4.0	ns

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Electrical Characteristic Curves



10 Ta=100°C

Ta=50°C

Ta=25°C

Ta=25°C

40

Reverse voltage VF [V]

60

80

100

20

Fig. 3 C_T - V_R

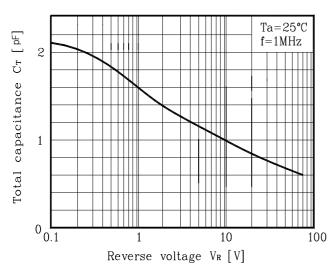


Fig. 4 trr-I_F

Fig. 2 I_R - V_R

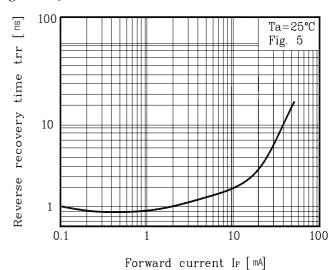
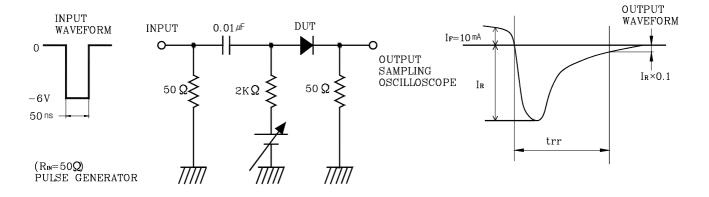


Fig. 5 Reverse recovery time(trr) test circuit



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