

# 1SS352

## SILICON EPITAXIAL HIGH SPEED SWITCHING DIODE

### FEATURES :

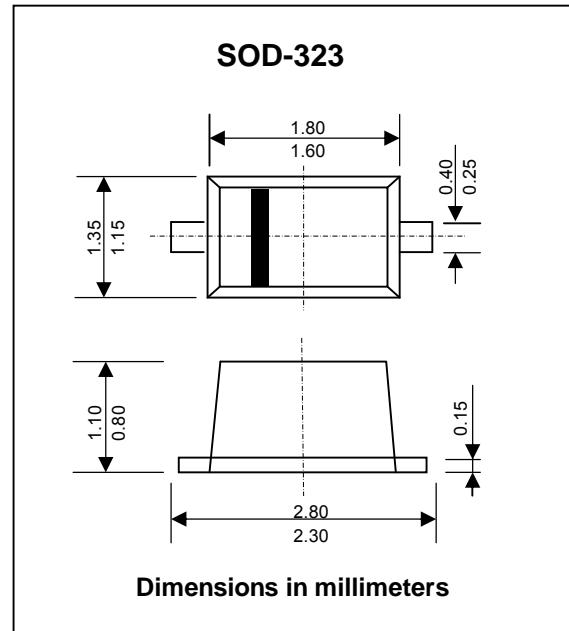
- Small plastic package suitable for surface mounted design
- High Speed ( $T_{rr} = 1.6 \text{ ns Typ.}$ )
- Low forward voltage ( $V_F = 0.98 \text{ Typ.}$ )
- Small total capacitance ( $C_T = 0.5 \text{ pF Typ.}$ )
- Pb / RoHS Free

### APPLICATIONS

- High speed switching

### DESCRIPTION

- Silicon planar zener diode in a small plastic SMD SOD-323 package



### Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum peak reverse voltage	$V_{RRM}$	85	V
Maximum DC reverse voltage	$V_{RM}$	80	V
Maximum average forward current	$I_F$	100	mA
Maximum peak forward current	$I_{FM}$	200	mA
Maximum power dissipation	$P_D$	200 <sup>(1)</sup>	mW
Maximum surge current (10ms)	$I_{FSM}$	1.0	A
Operating junction temperature	$T_J$	125	°C
Storage temperature range	$T_{STG}$	-55 to + 125	°C

**Note :** (1) Mounted on a glass epoxy circuit board of 20 x 20 mm, pad dimension of 4 x 4

### Electrical Characteristics (Ta = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 1 \text{ mA}$	-	0.62	-	V
		$I_F = 10 \text{ mA}$	-	0.75	-	
		$I_F = 100 \text{ mA}$	-	0.98	1.2	
Reverse Current	$I_R$	$V_R = 30 \text{ V}$	-	-	0.1	$\mu\text{A}$
		$V_R = 80 \text{ V}$	-	-	0.5	
Total Capacitance	$C_T$	$f = 1 \text{ MHz ; } V_R = 0$	-	0.5	3.0	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 10 \text{ mA}$	-	1.6	4.0	ns

## RATING AND CHARACTERISTIC CURVES (1SS352)

FIG.1 - TYPICAL FORWARD CHARACTERISTICS

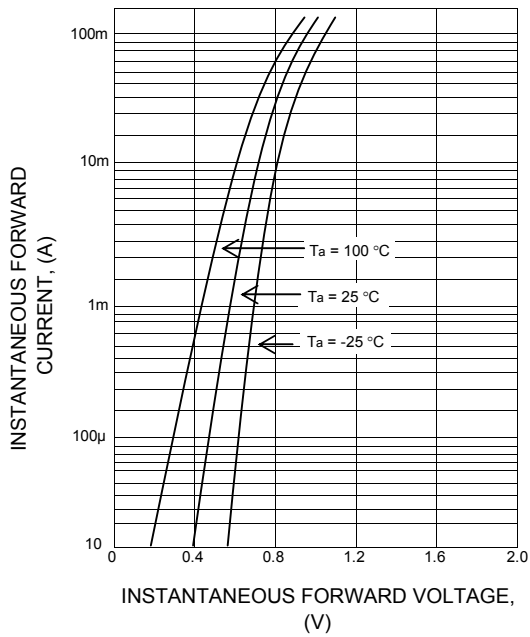


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

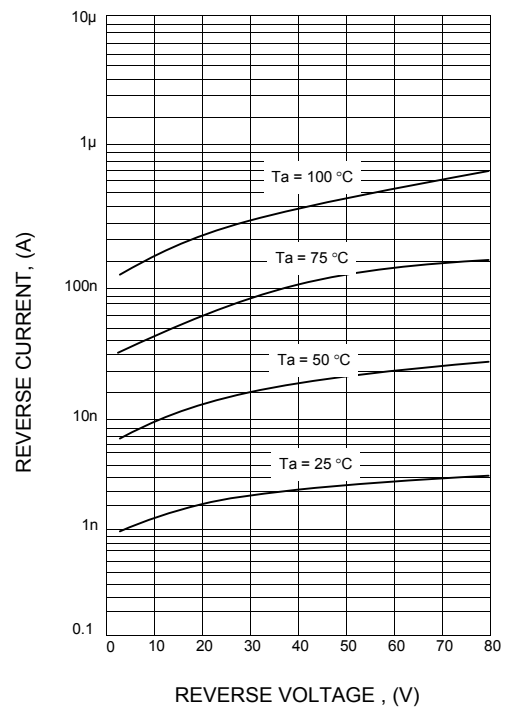


FIG.3 - TOTAL CAPACITANCE VS REVERSE VOLTAGE

