

# 1SS2580WS

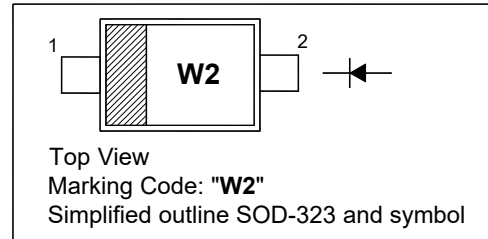
## Surface Mount Fast Switching Diode

### Features

- Fast Switching Speed

### PINNING

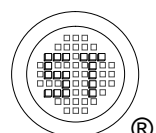
PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	80	V
Working Peak Reverse Voltage	$V_{RWM}$	80	V
Reverse Voltage	$V_R$	80	V
RMS Reverse Voltage	$V_{RMS}$	57	V
Forward Continuous Current	$I_{FM}$	250	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	3.3 1	A
		at t = 1 ms at t = 1 s	
Thermal Resistance from Junction Ambient <sup>1)</sup>	$R_{\theta JA}$	260	$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	$^\circ\text{C}$

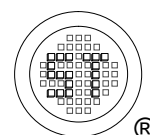
<sup>1)</sup> Part mounted on FR-4 PC board with recommended pad layout.



# 1SS2580WS

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \mu\text{A}$	$V_{(BR)R}$	80	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 5 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 100 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - - - -	0.715 0.72 0.855 0.9 1 1.25	V
Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 25 \text{ V}$ at $V_R = 80 \text{ V}$ at $V_R = 25 \text{ V}, T_J = 150^\circ\text{C}$ at $V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$	$I_R$	- - - - -	25 30 100 30 50	nA nA nA $\mu\text{A}$ $\mu\text{A}$
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_T$	-	2.3	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	$t_{rr}$	-	4	ns



# 1SS2580WS

## Electrical Characteristics Curves

Figure 1. Typical Forward Characteristics

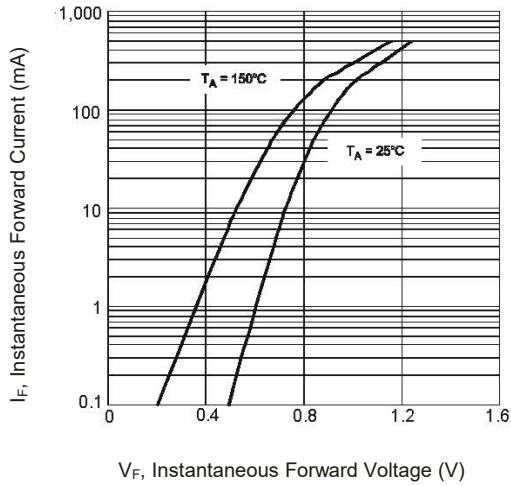


Figure 2. Total Capacitance vs. Reverse Voltage

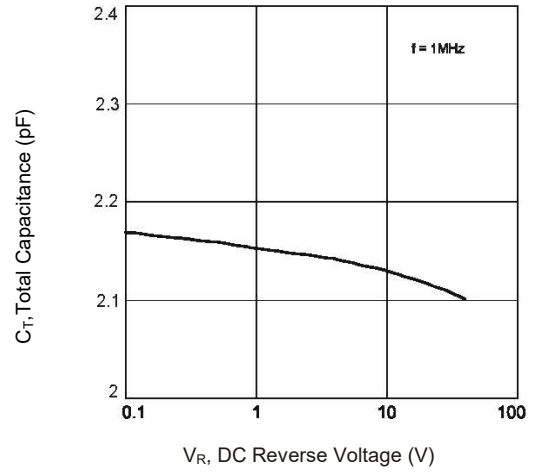


Figure 3. Maximum Permissible Non Repetitive Peak Forward Current as a Function of Pulse Duration

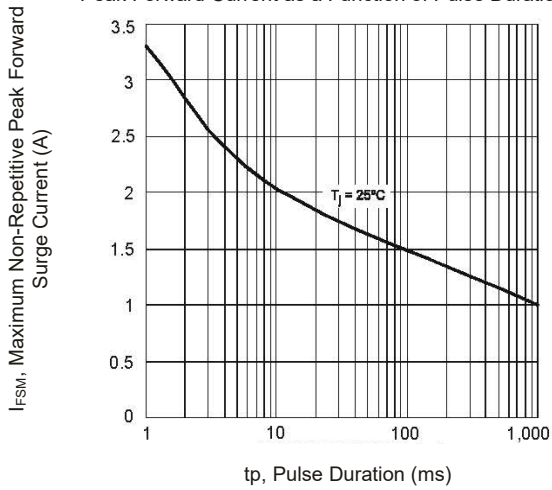


Figure 4. Forward Current Derating Curve

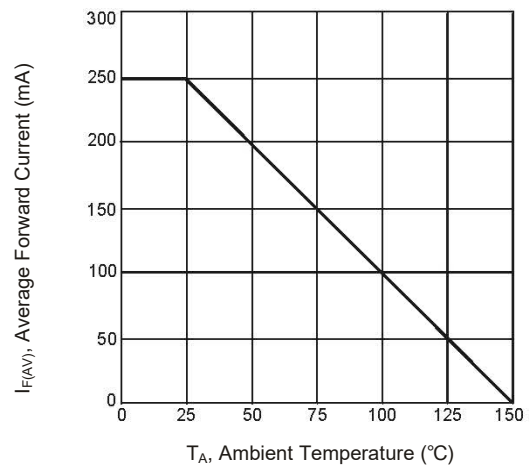
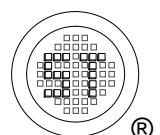
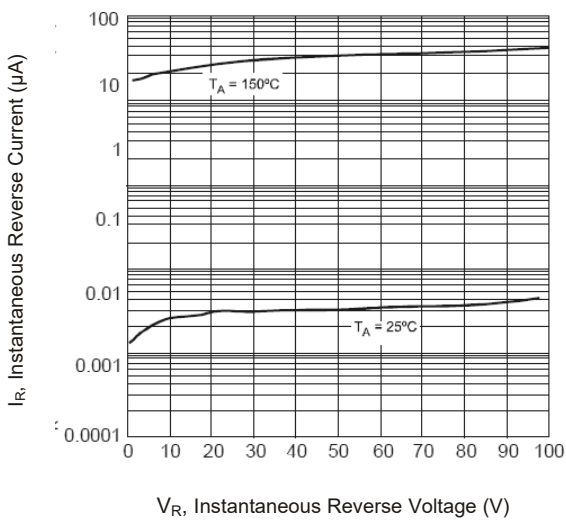


Figure 5. Typical Reverse Characteristics

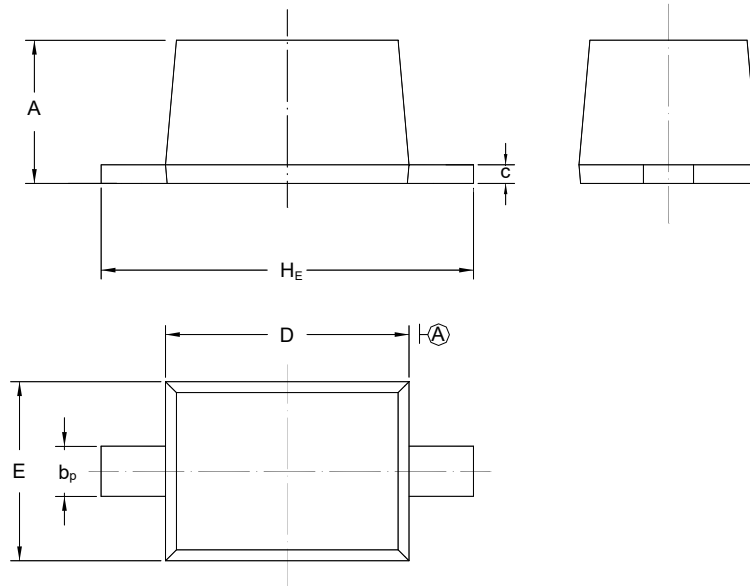


# 1SS2580WS

## PACKAGE OUTLINE

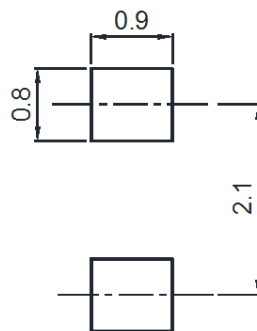
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	$b_p$	C	D	E	$H_E$
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	$4 \pm 0.1$	$0.157 \pm 0.004$	178	7	3,000

## Marking information

" III " = Cathode line

" W2 " = Part No.

Font type: Arial

