

1SS2580WS

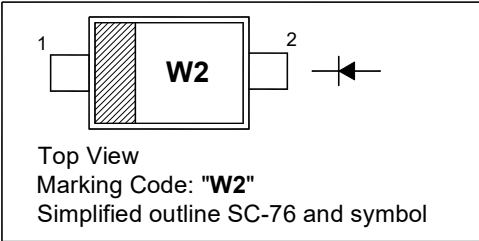
Surface Mount Fast Switching Diode

Features

- Fast Switching Speed

PINNING

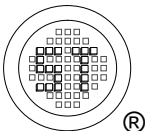
PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings (T_a = 25°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 ¹⁾	R _{θJA}	260	°C/W
Operating Junction and Storage Temperature Range	T _j , T _{stg}	- 65 to + 150	°C

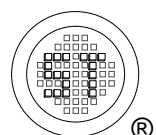
¹⁾ Part mounted on FR-4 PC board with recommended pad layout.



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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 μA μA
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



Electrical Characteristics Curves

Figure 1. Typical Forward Characteristics

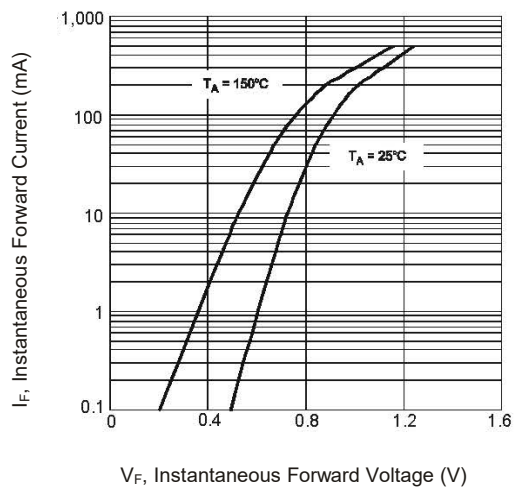


Figure 2. Total Capacitance vs. Reverse Voltage

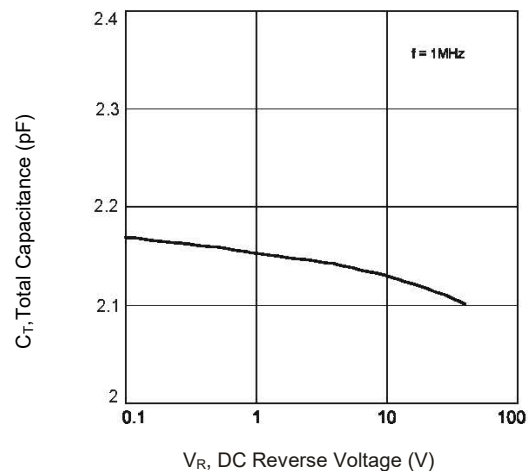


Figure 3. Maximum Permissible Non Repetitive Peak Forward Current as a Function of Pulse Duration

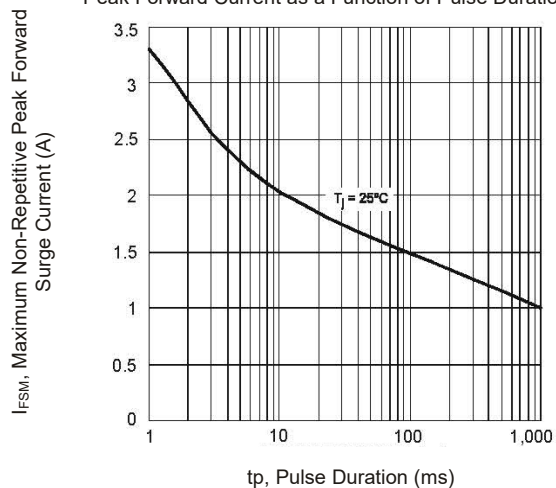


Figure 4. Forward Current Derating Curve

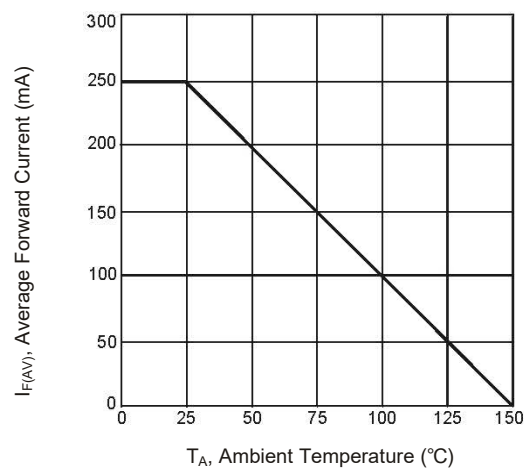
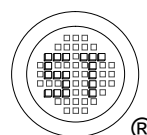
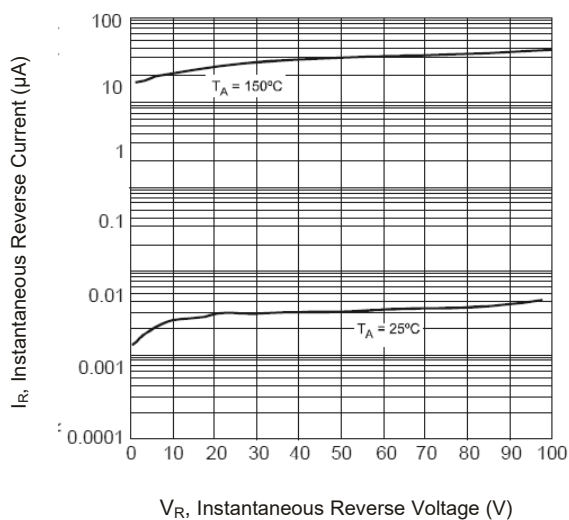


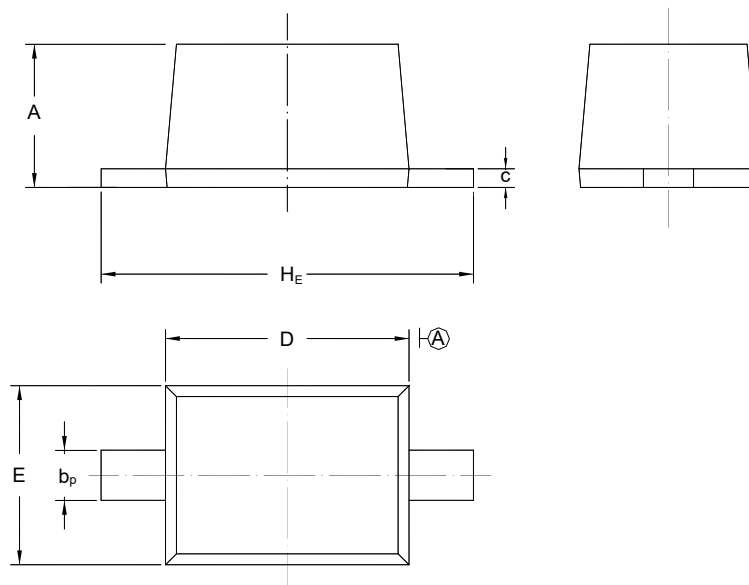
Figure 5. Typical Reverse Characteristics



PACKAGE OUTLINE

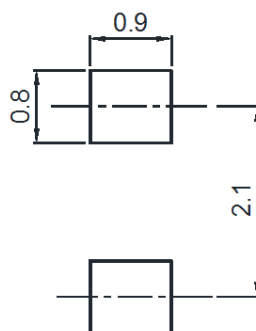
Plastic surface mounted package; 2 leads

SC-76



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	
SC-76	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" W2 " = Part No.

Font type: Arial

