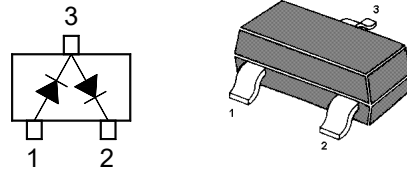


# 1SS226

## Silicon Epitaxial Planar Switching Diode

### Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



1. Anode 2. Cathode 3. Anode / Cathode  
SOT-23 Plastic Package

### Applications

- Ultra high speed switching application

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

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	$V_{RM}$	85	V
Reverse Voltage	$V_R$	80	V
Average Rectified Forward Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	$I_{FM}$	300	mA
Non-repetitive Peak Forward Surge Current (10 ms)	$I_{FSM}$	2	A
Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

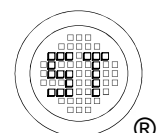
### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	357	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10 \mu\text{A}$	$V_{(BR)R}$	80	-	V
Forward Voltage at $I_F = 100 \text{ mA}$	$V_F$	-	1.2	V
Reverse Current at $V_R = 80 \text{ V}$	$I_R$	-	0.5	$\mu\text{A}$
Total Capacitance at $V_R = 0$ , $f = 1 \text{ MHz}$	$C_{tot}$	-	3	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$ , $I_{RR} = 0.1 * I_R$ , $V_R = 6 \text{ V}$ , $R_L = 100 \Omega$	$t_{rr}$	-	4	ns



## Electrical Characteristics Curves

Fig 1. Power Derating Curve

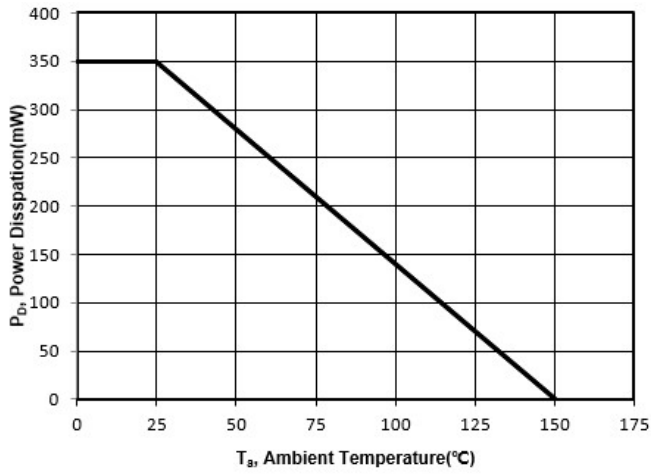


Fig 2. Total Capacitance vs. Reverse Voltage

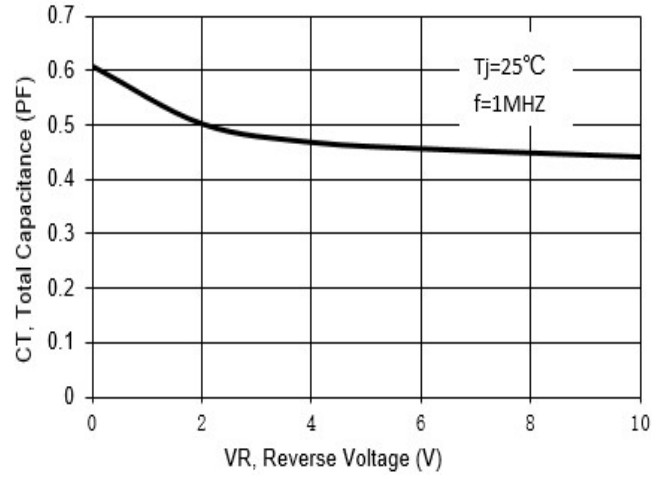


Fig 3. Reverse Current vs. Reverse Voltage

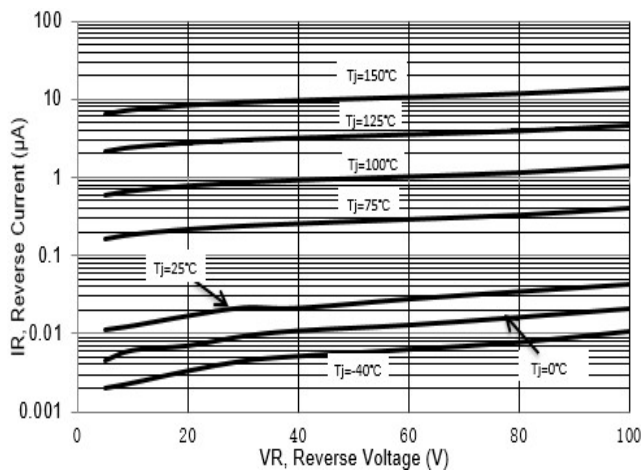
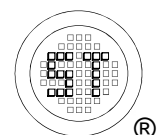
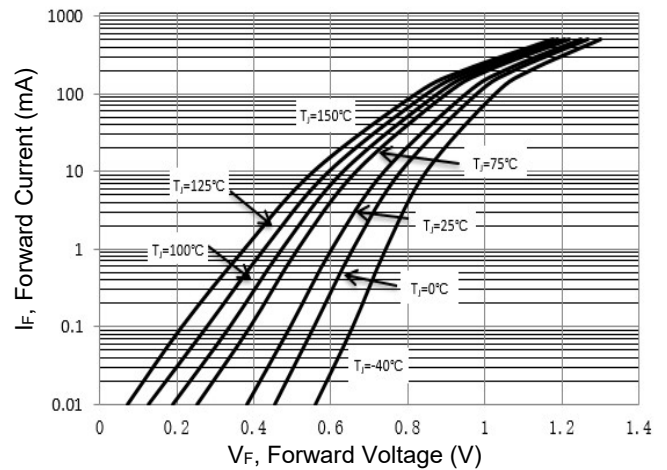
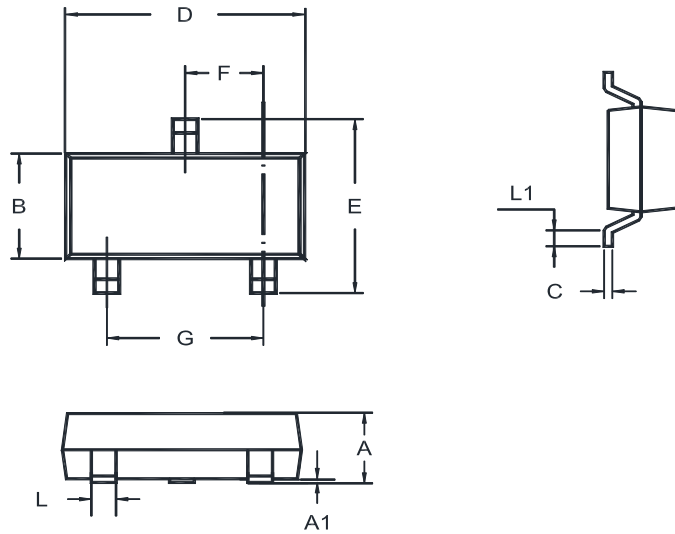


Fig 4. Forward Characteristics



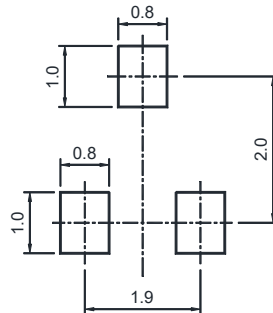
## Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

## Recommended Soldering Footprint

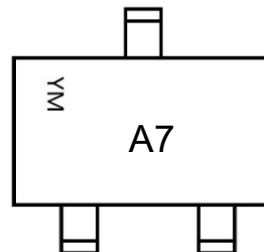


## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

"A7" = Part No.  
 "YM" = Date Code Marking  
 "Y" = Year  
 "M" = Month  
 Font type: Arial



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