

# 1SS352

## Silicon Epitaxial Planar Switching Diode

### Features

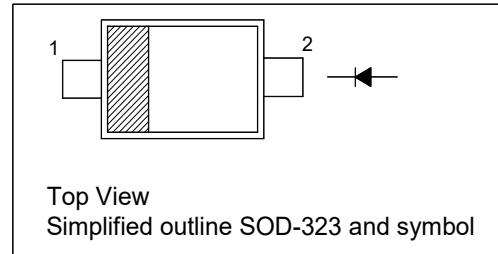
- Low Forward Voltage
- Fast Reverse Recovery Time
- Small Total Capacitance

### Application

- Ultra high speed switching

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



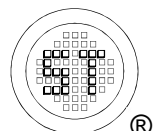
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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	$I_{FM}$	200	mA
Surge Forward Current (10 ms)	$I_{FSM}$	1	A
Power Dissipation	$P_{tot}$	200	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>	$R_{\theta JA}$	625	$^\circ\text{C/W}$

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

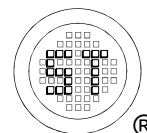


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## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10 \mu\text{A}$	$V_{(BR)R}$	80	-	V
Forward Voltage at $I_F = 100 \text{mA}$	$V_F$	-	1.2	V
Reverse Current at $V_R = 30 \text{V}$ at $V_R = 80 \text{V}$	$I_R$	- -	0.1 0.5	$\mu\text{A}$
Total Capacitance at $V_R = 0 \text{V}$ , $f = 1 \text{MHz}$	$C_T$	-	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

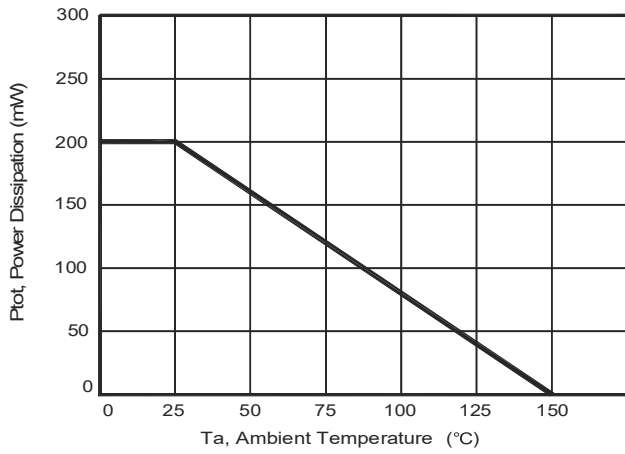


Fig 2. Total Capacitance vs. Reverse Voltage

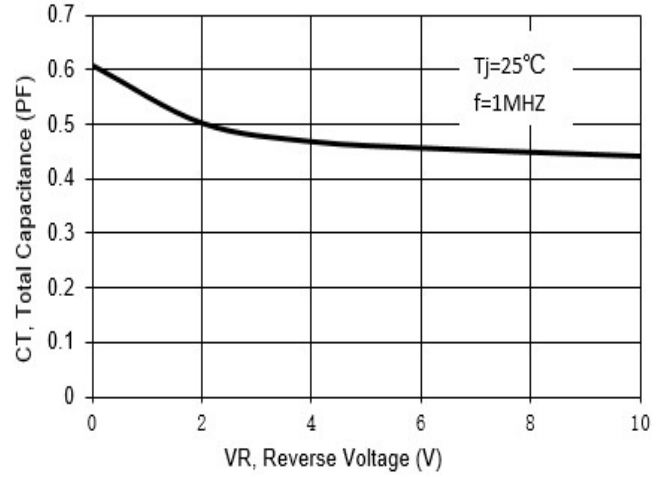


Fig 3. Reverse Current vs. Reverse Voltage

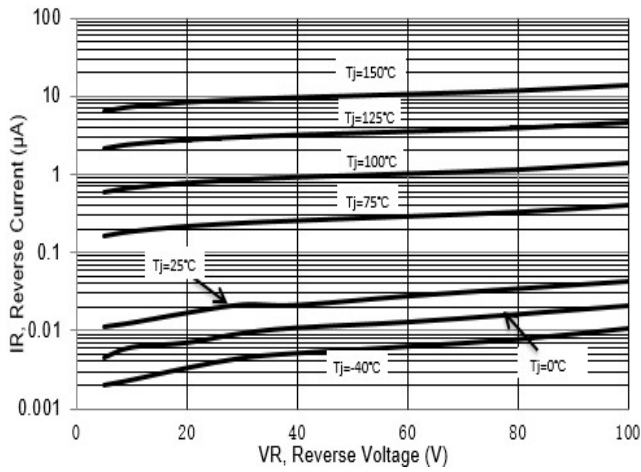
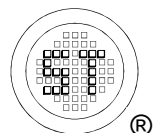
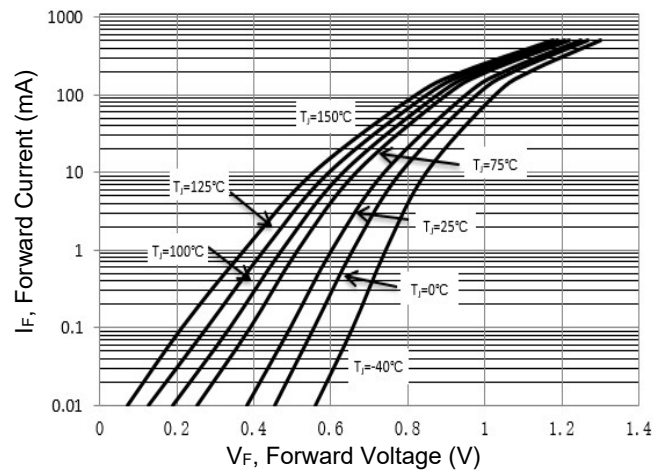


Fig 4. Forward Characteristics

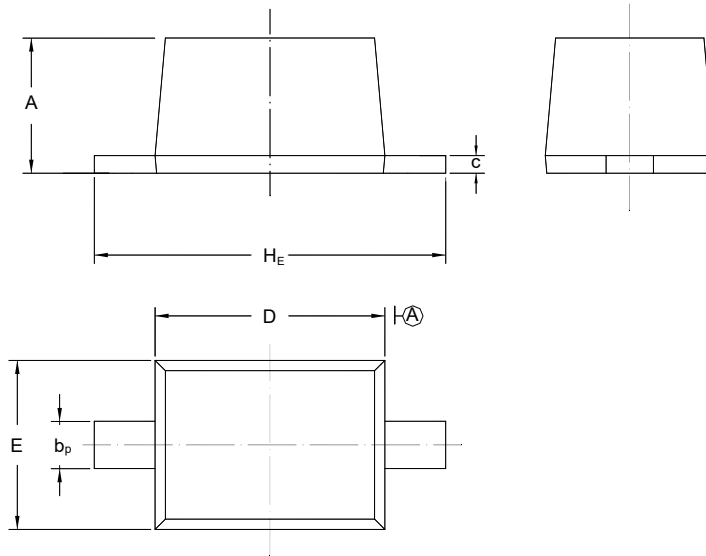


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## PACKAGE OUTLINE

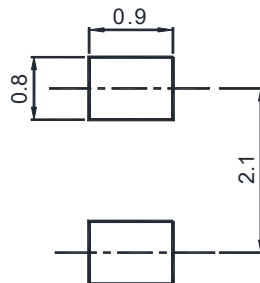
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>
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 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" W2 " = Part No.

" III " = Cathode line

Font type: Arial



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