

# 1SS357

## Silicon Epitaxial Schottky Barrier Diode

### Features

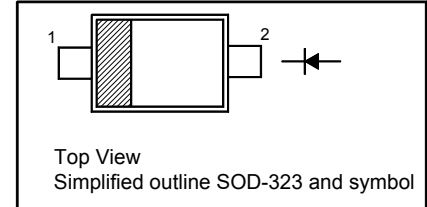
- Low forward voltage
- Low reverse current

### Applications

- 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	$V_{RM}$	45	V
Reverse Voltage	$V_R$	40	V
Average Rectified Forward Current	$I_{F(AV)}$	100	mA
Maximum (Peak) Forward Current	$I_{FM}$	300	mA
Surge Forward Current (10 ms)	$I_{FSM}$	1	A
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 125	$^\circ\text{C}$

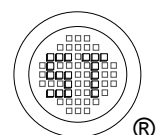
### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 150 \mu\text{A}$	$V_{(BR)R}$	40	-	V
Forward Voltage at $I_F = 100 \text{ mA}$	$V_F$	-	0.6	V
Reverse Current at $V_R = 40 \text{ V}$	$I_R$	-	5	$\mu\text{A}$
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	$C_T$	-	25	pF



## Electrical Characteristic Curves

Fig 1. Reverse Characteristic Curve

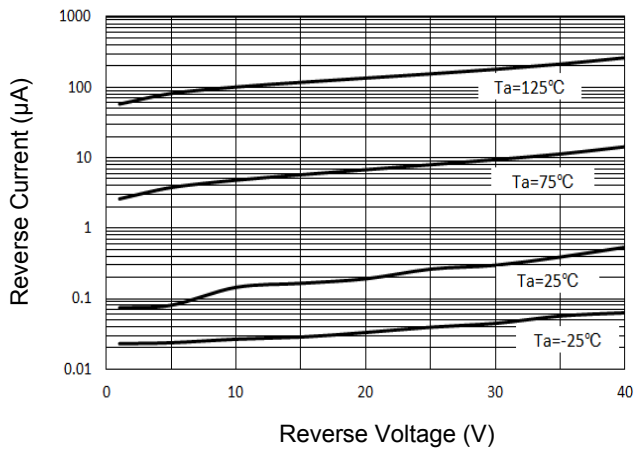


Fig 2. Forward Characteristic Curve

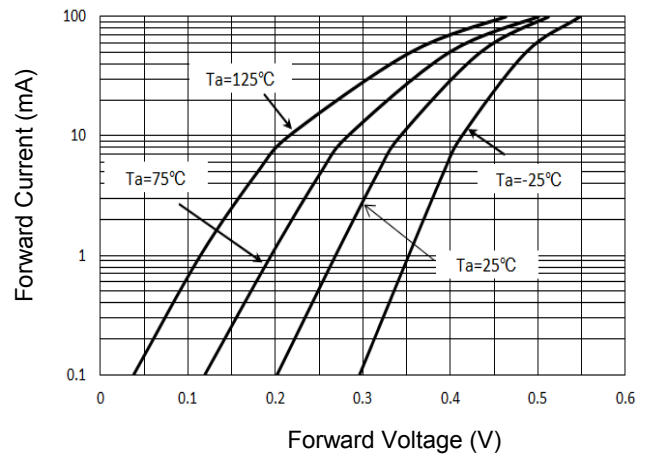


Fig 3. Junction Capacitance

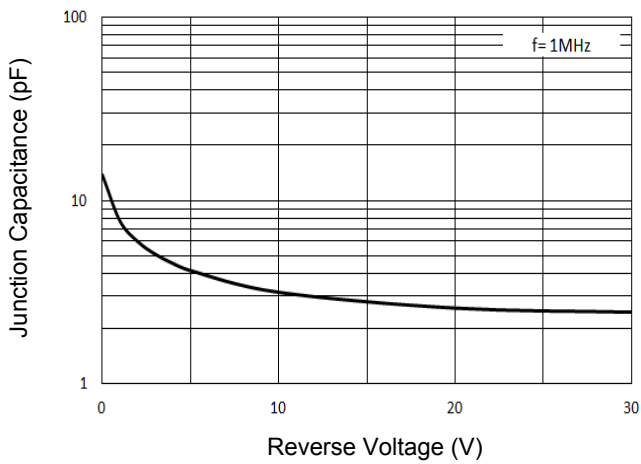
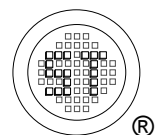
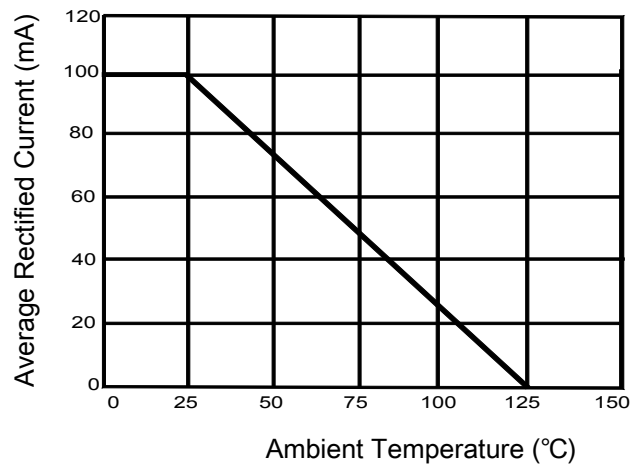


Fig 4. Average Rectified Current Derating Curve

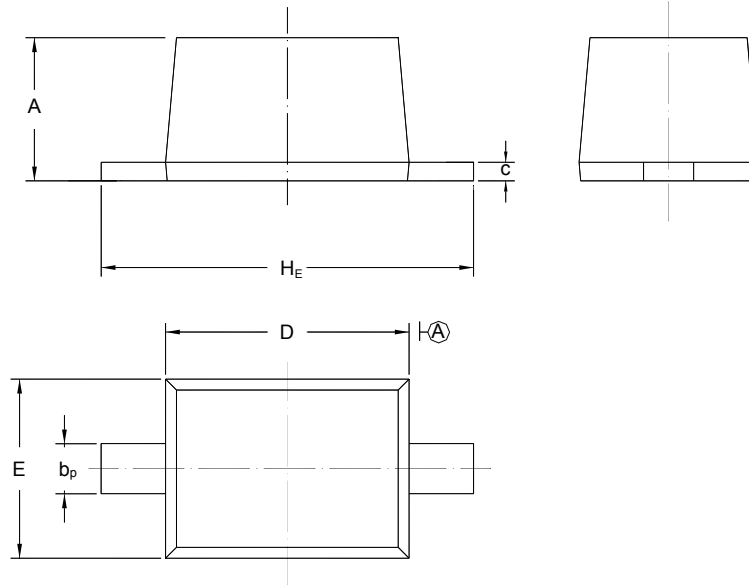


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## PACKAGE OUTLINE

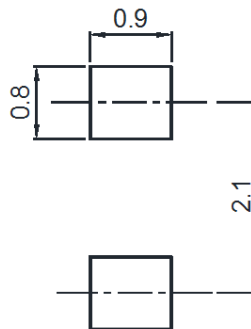
Plastic surface mounted package; 2 leads

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

" III " = Cathode line

" SU " = Part No.

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