

## Schottky Barrier Diodes

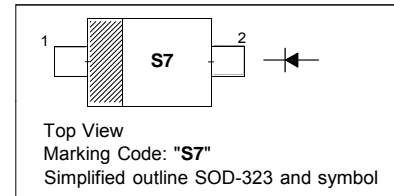
These Schottky barrier diodes are designed for high current, handling capability, and low forward voltage performance.

### Features

- Low Forward Voltage – 0.24 Volts (Typ) @  $I_F = 10 \text{ mAdc}$
- High Current Capability
- ESD Rating – Human Body Model: CLASS 3B  
– Machine Model: C
- Pb-Free Packages are Available

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MAXIMUM RATINGS ( $T_J = 125^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	20	Vdc
Peak Reverse Voltage	$V_{RM}$	23	V
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_F$	200 2.0	mW mW/ $^\circ\text{C}$
Forward Current (DC) Continuous	$I_F$	1	A
Forward Current $t = 8.3 \text{ ms}$ Half Sinewave	$I_F$	5	A
Junction Temperature	$T_J$	125 Max	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.



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**SOD-323**



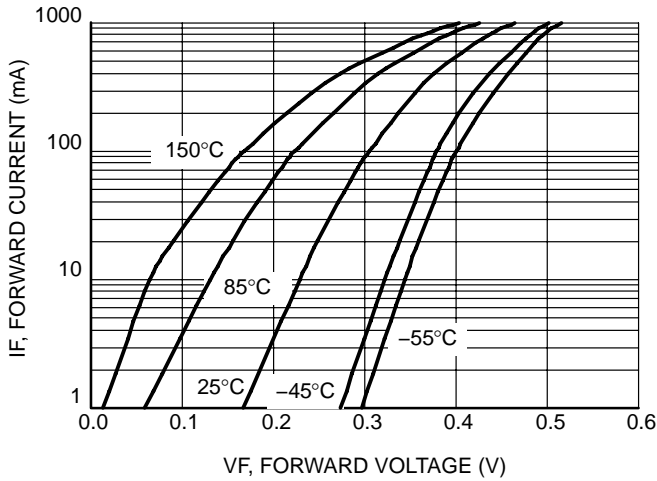
**SR0320WS**

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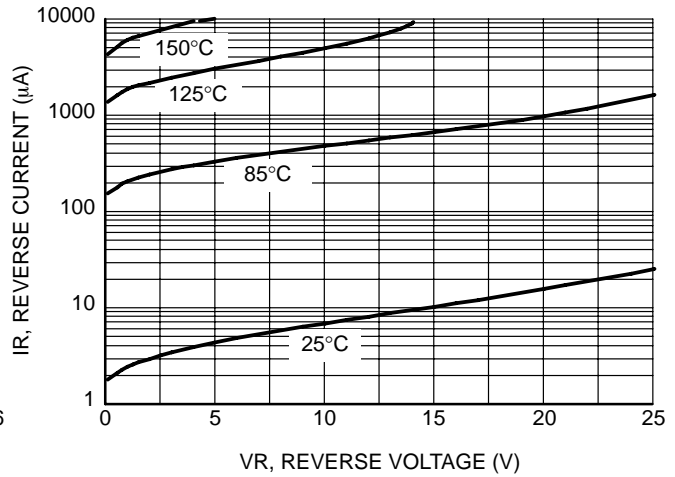
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**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

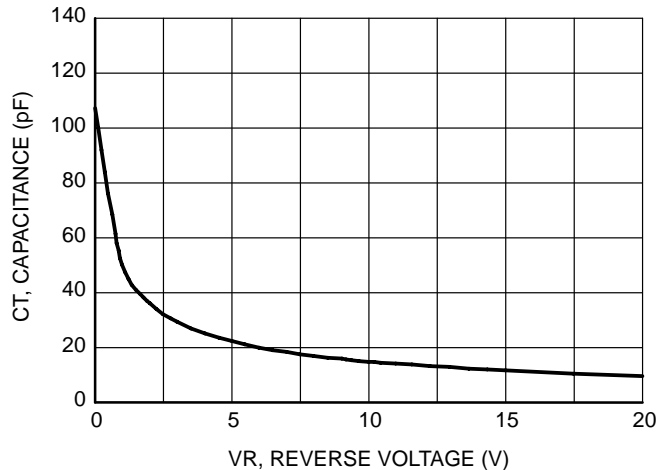
Characteristic	Symbol	Min	Typ	Max	Unit
Total Capacitance ( $V_R = 5.0\text{ V}$ , $f = 1.0\text{ MHz}$ )	$C_T$	-	25	29	pF
Reverse Leakage ( $V_R = 15\text{ V}$ )	$I_R$	-	10	50	$\mu\text{A}$
Reverse Leakage ( $V_R = 2.0\text{ V @ } 85^\circ\text{ C}$ )	$I_R$	-	200	300	$\mu\text{A}$
Reverse Leakage ( $V_R = 15.0\text{ V @ } 85^\circ\text{ C}$ )	$I_R$	-	450	1000	$\mu\text{A}$
Forward Voltage ( $I_F = 10\text{ mA}$ )	$V_F$	-	0.24	0.27	Vdc
Forward Voltage ( $I_F = 100\text{ mA}$ )	$V_F$	-	0.30	0.35	Vdc
Forward Voltage ( $I_F = 900\text{ mA}$ )	$V_F$	-	0.45	0.50	Vdc



**Figure 1. Forward Voltage**



**Figure 2. Leakage Current**



**Figure 3. Total Capacitance**



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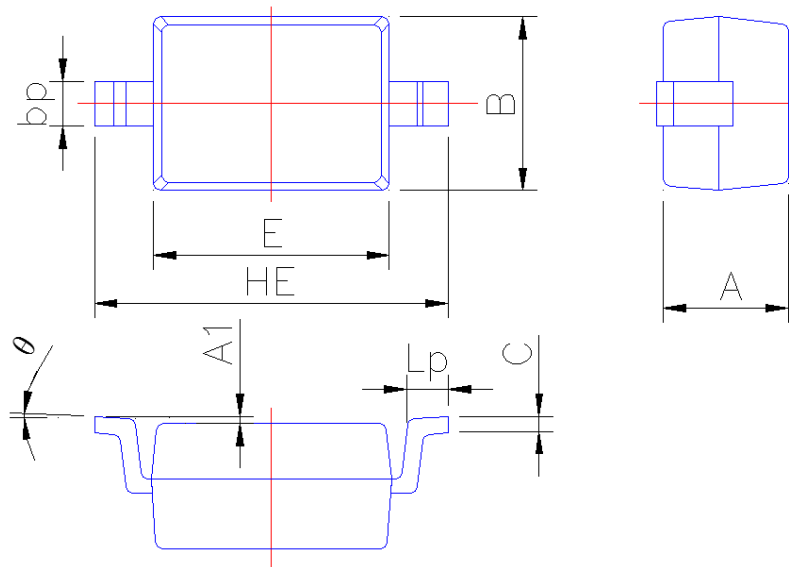
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**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-323



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.15
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.40
C	0.09	0.150
E	1.60	1.80
HE	2.30	2.70
Lp	0.20	0.40
θ	0°	5°