

## SCHOTTKY BARRIER DIODE

### Features

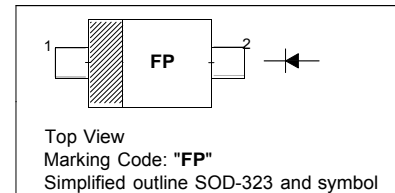
- Ultra high-speed switching
- Very low forward voltage
- Very small SMD plastic package

### Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

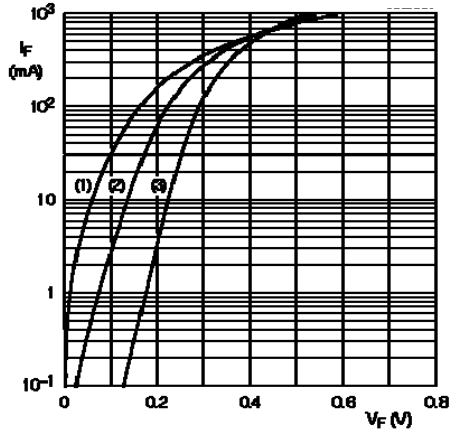
Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	20	V
Continuous Forward Current	$I_F$	1	A
Non-repetitive Peak Forward Current (t = 8.3 ms Half Sine Wave, JEDEC method)	$I_{FSM}$	5	A
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Operating Ambient Temperature Range	$T_{op}$	- 65 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	220 <sup>1)</sup> 180 <sup>2)</sup>	K/W

<sup>1)</sup> Mounted on P.C.B. 10 X 10 mm<sup>2</sup> Cu

<sup>2)</sup> Mounted on P.C.B. 40 X 40 mm<sup>2</sup> Cu

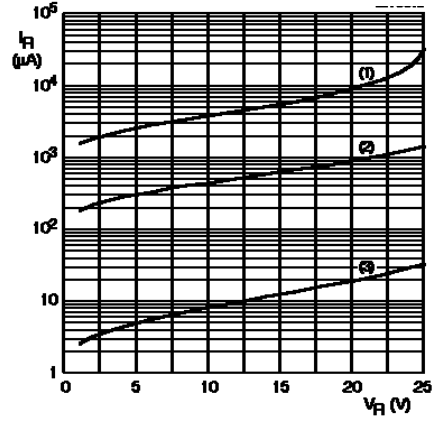
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 1\text{ A}$	$V_F$	0.27 0.35 0.65	V
Reverse Current at $V_R = 5\text{ V}$ at $V_R = 8\text{ V}$ at $V_R = 15\text{ V}$	$I_R$	10 20 50	$\mu\text{A}$
Diode Capacitance at $V_R = 5\text{ V}$ , f = 1 MHz	$C_d$	25	pF



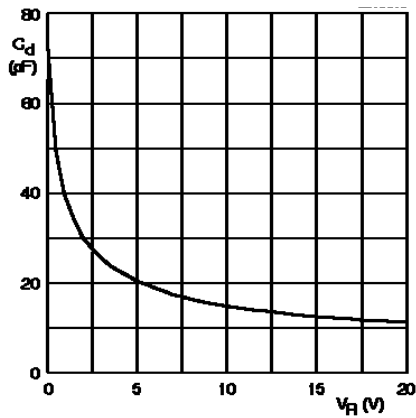
- (1)  $T_{amb} = 85\text{ }^{\circ}\text{C}$ .
- (2)  $T_{amb} = 25\text{ }^{\circ}\text{C}$ .
- (3)  $T_{amb} = -40\text{ }^{\circ}\text{C}$ .

! Forward current as a function of forward voltage; typical values.



- (1)  $T_{amb} = 125\text{ }^{\circ}\text{C}$ .
- (2)  $T_{amb} = 85\text{ }^{\circ}\text{C}$ .
- (3)  $T_{amb} = 25\text{ }^{\circ}\text{C}$ .

Reverse current as a function of reverse voltage; typical values.



$T_{amb} = 25\text{ }^{\circ}\text{C}$ ;  $f = 1\text{ MHz}$ .

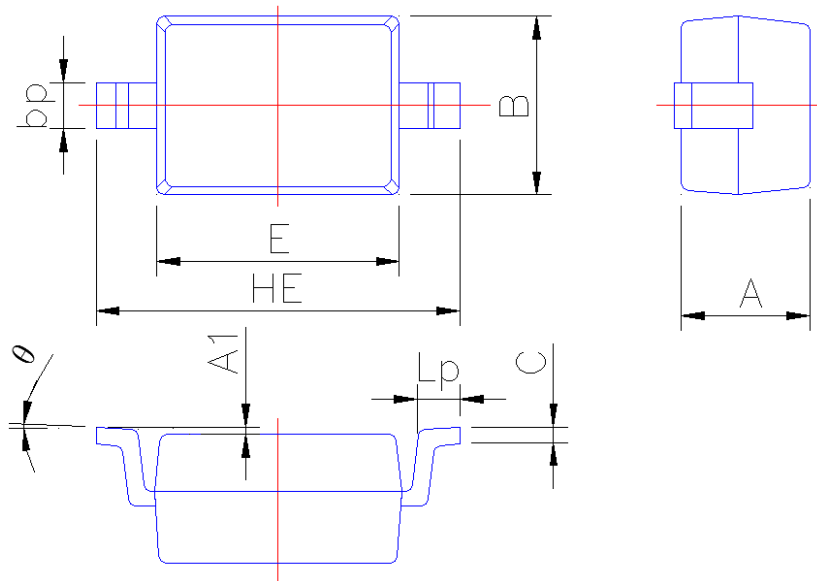
Diode capacitance as a function of reverse voltage; typical values.



## 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°