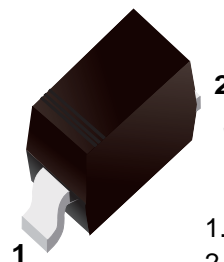


## Schottky Diodes

### ■ Features

- Very Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance



1.Cathode  
2.Anode

### ■ Simplified outline(SOD-323)

Top View 

### ■ Absolute Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise noted)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	
Average Rectified Output Current	I <sub>O</sub>	1	A
Forward Current t = 8.3 ms Half Sinewave	I <sub>FSM</sub>	5.5	
Power Dissipation	P <sub>D</sub>	235	mW
Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	426	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150	

Note 1: Part mounted on FR-4 PC board with recommended pad layout

### ■ Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage (Note 2)	V <sub>R</sub>	I <sub>R</sub> = 500 μA	30			V
Forward voltage	V <sub>F1</sub>	I <sub>F</sub> = 10 mA			0.27	
	V <sub>F2</sub>	I <sub>F</sub> = 100 mA			0.35	
	V <sub>F3</sub>	I <sub>F</sub> = 1 A			0.55	
Leakage current (Note 2)	I <sub>R1</sub>	V <sub>R</sub> =5 V			10	μA
	I <sub>R2</sub>	V <sub>R</sub> =8 V			20	
	I <sub>R3</sub>	V <sub>R</sub> =15 V			50	
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> = 5 V, f= 1 MHz		25		pF

Note 2: Short duration pulse test used to minimize self-heating effect.

■ Typical Characteristics

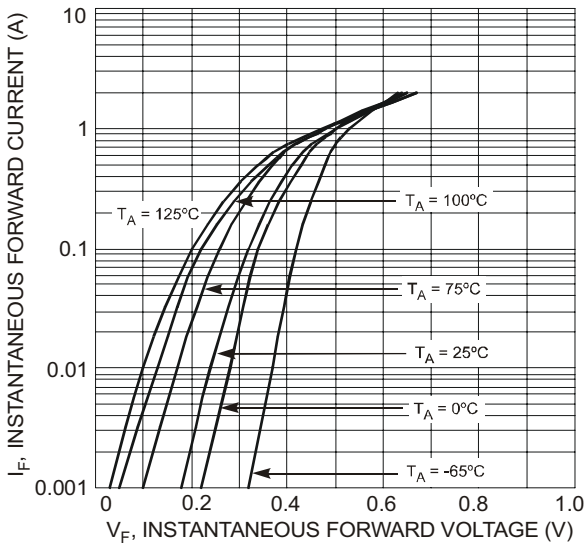


Fig. 1 Typical Forward Characteristics

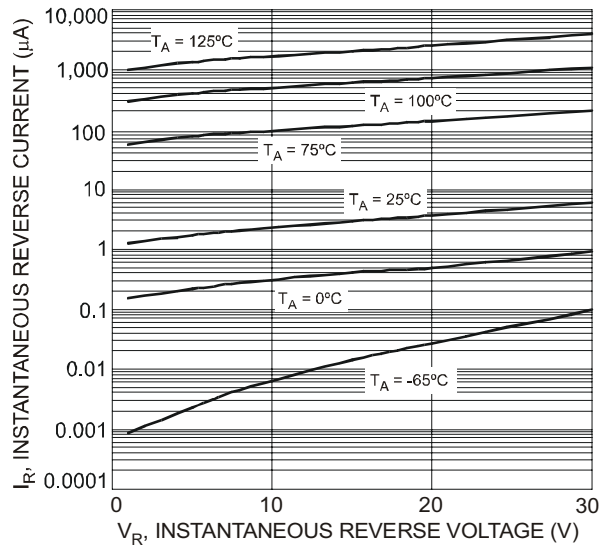


Fig. 2 Typical Reverse Characteristics

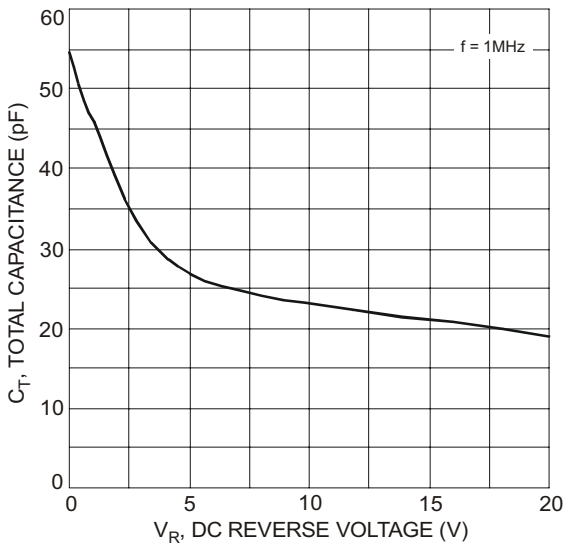


Fig. 3 Total Capacitance vs. Reverse Voltage

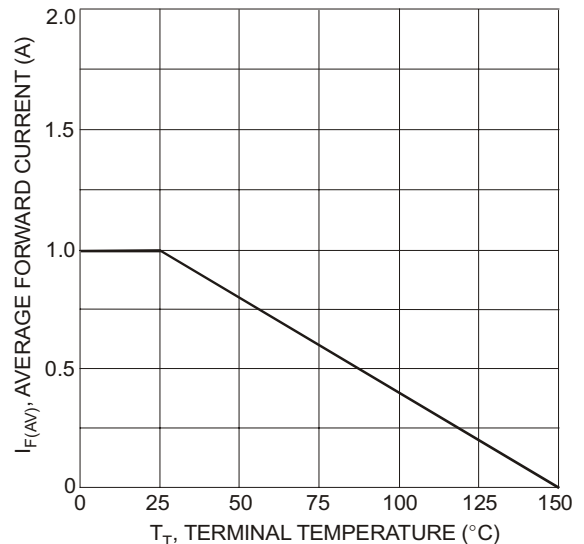
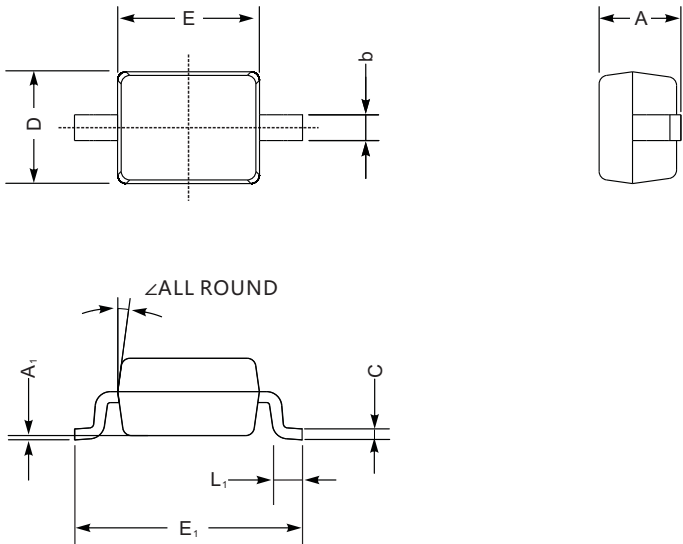


Fig. 4 Forward Current Derating Curve

■ SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	$\angle$
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

■ The recommended mounting pad size

