### SCHOTTKY BARRIER DIODE

#### **Features**

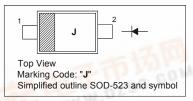
- · Very low forward voltage
- Very low reverse current
- Ultra small SMD package

### **Applications**

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Low power consumption applications



PIN	DESCRIPTION
1	Cathode
2	Anode



# Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	40	V
Continuous Forward Current	I <sub>F</sub>	200	mA
Repetitive Peak Forward Current t <sub>p</sub> ≤ 1 s	I <sub>FRM</sub>	300	mA
Non-repetitive Peak Forward Current (t = 8.3 ms half sinewave)	I <sub>FSM</sub>	1	А
Junction Temperature	TJ	150	°C
Storage Temperature	T <sub>stg</sub>	- 65 to + 150	°C
Operating Ambient Temperature	T <sub>amb</sub>	- 65 to + 150	°C

# Characteristics at T<sub>a</sub> = 25 °C

Characteristics at T <sub>a</sub> = 25 °C			
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F$ = 0.1 mA at $I_F$ = 10 mA at $I_F$ = 100 mA at $I_F$ = 200 mA	V <sub>F</sub>	220 290 360 500 600	mV
Reverse Current at V <sub>R</sub> = 25 V	I <sub>R</sub>	0.5	μА
Diode Capacitance at V <sub>R</sub> = 1 V, f = 1 MHz	C <sub>D</sub>	20	pF



# SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

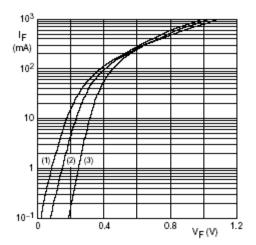








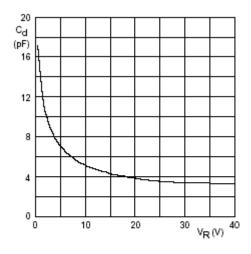






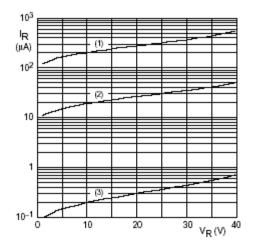
<sup>(2)</sup> T<sub>amb</sub> = 85 °C.

Fig.1 Forward current as a function of forward voltage; typical values.



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

Fig. 3 Diode capacitance as a function of reverse voltage; typical values.



- (1) T<sub>amb</sub> = 125 °C.
- (2) T<sub>amb</sub> = 85 °C.
- (3) T<sub>amb</sub> = 25 °C.

Fig. 2 Reverse current as a function of reverse voltage; typical values.











<sup>(3)</sup> T<sub>amb</sub> = 25 °C.

### **PACKAGE OUTLINE**

# Plastic surface mounted package; 2 leads

**SOD-523** 

