

# 1SS06AWT

## SCHOTTKY BARRIER DIODE

### Features

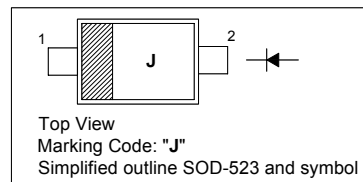
- Very low forward voltage
- Very low reverse current
- Ultra small SMD package

### Applications

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

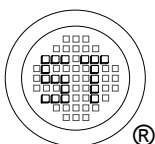


### Absolute Maximum Ratings ( $T_a = 25\text{ }^{\circ}\text{C}$ )

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	40	V
Continuous Forward Current	$I_F$	200	mA
Repetitive Peak Forward Current $t_p \leq 1\text{ s}$	$I_{FRM}$	300	mA
Non-repetitive Peak Forward Current ( $t = 8.3\text{ ms}$ half sinewave)	$I_{FSM}$	1	A
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_s$	- 65 to + 150	$^{\circ}\text{C}$
Operating Ambient Temperature	$T_{amb}$	- 65 to + 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	$V_F$	220 290 360 500 600	mV
Reverse Current at $V_R = 25\text{ V}$	$I_R$	0.5	$\mu\text{A}$
Diode Capacitance at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_D$	20	pF

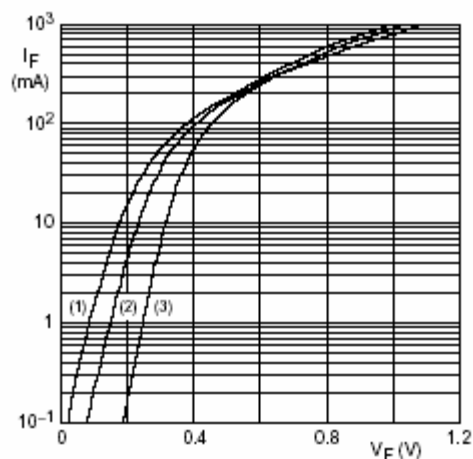


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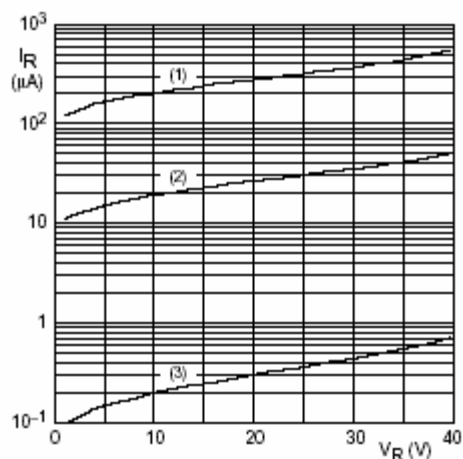


Dated : 23/11/2006



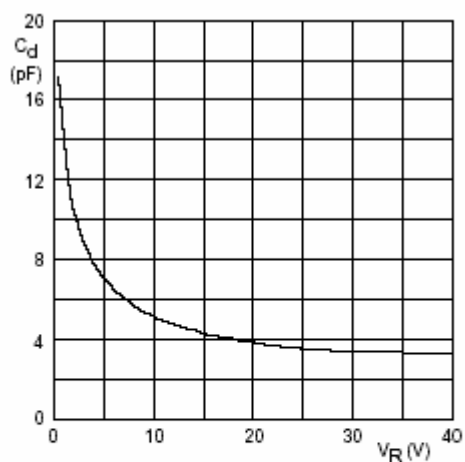
- (1)  $T_{amb} = 125\text{ }^{\circ}\text{C}$ .  
 (2)  $T_{amb} = 85\text{ }^{\circ}\text{C}$ .  
 (3)  $T_{amb} = 25\text{ }^{\circ}\text{C}$ .

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



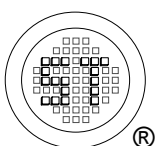
- (1)  $T_{amb} = 125\text{ }^{\circ}\text{C}$ .  
 (2)  $T_{amb} = 85\text{ }^{\circ}\text{C}$ .  
 (3)  $T_{amb} = 25\text{ }^{\circ}\text{C}$ .

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



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

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



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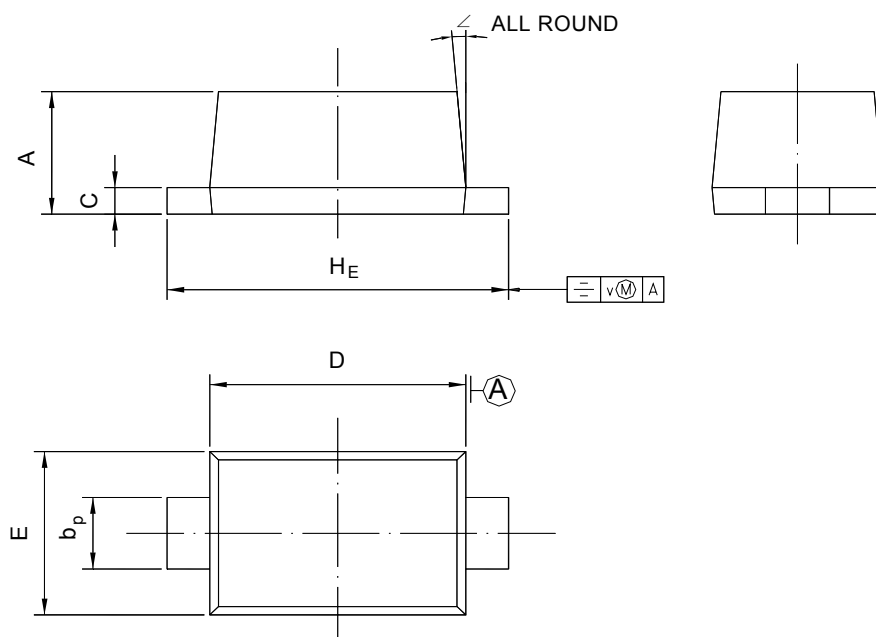
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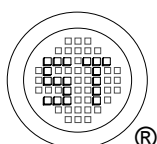
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523

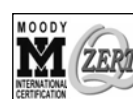


UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.127	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°



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