



# FUKUCOM COMPANY LTD.

## 福靈有限公司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

### BAS521WT

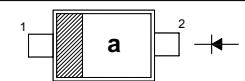
#### High Voltage Switching Diode

##### Applications

- high speed switching
- high voltage switching

##### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



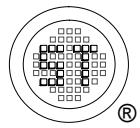
Top View  
Marking Code: "a"  
Simplified outline SOD-523 and symbol

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	300	V
Reverse Voltage	$V_R$	300	V
Continuous Forward Current	$I_F$	225	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-Repetitive Peak Forward Current (1 $\mu\text{s}$ )	$I_{FSM}$	4	A
Power Dissipation	$P_{tot}$	250	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 100 \text{ mA}$	$V_F$	-	1.1	V
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	300	-	V
Reverse Current at $V_R = 250 \text{ V}$	$I_R$	-	150	nA
Reverse Recovery Time at $I_F = I_R = 30 \text{ mA}$ , $R_L = 100 \Omega$ , $i_{rr} = 0.1 I_R$	$t_{rr}$	-	50	ns
Total Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_T$	-	5	pF



Dated : 13/07/2007



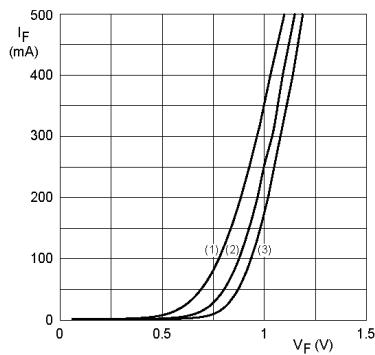
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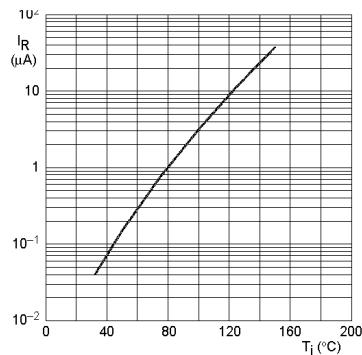
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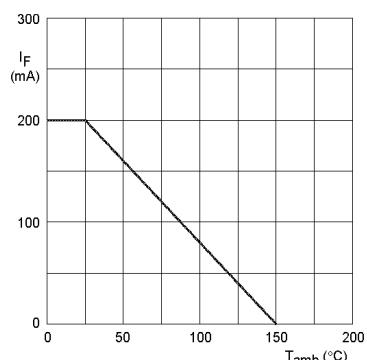
- (1)  $T_{amb} = 150 \text{ }^{\circ}\text{C}$ .
- (2)  $T_{amb} = 75 \text{ }^{\circ}\text{C}$ .
- (3)  $T_{amb} = 25 \text{ }^{\circ}\text{C}$ .

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

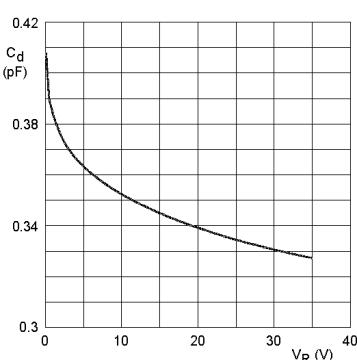


$V_R = V_{Rmax}$ ; typical values.

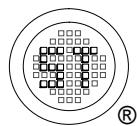
Reverse current as a function of junction temperature.



Maximum permissible continuous forward current as a function of ambient temperature.



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



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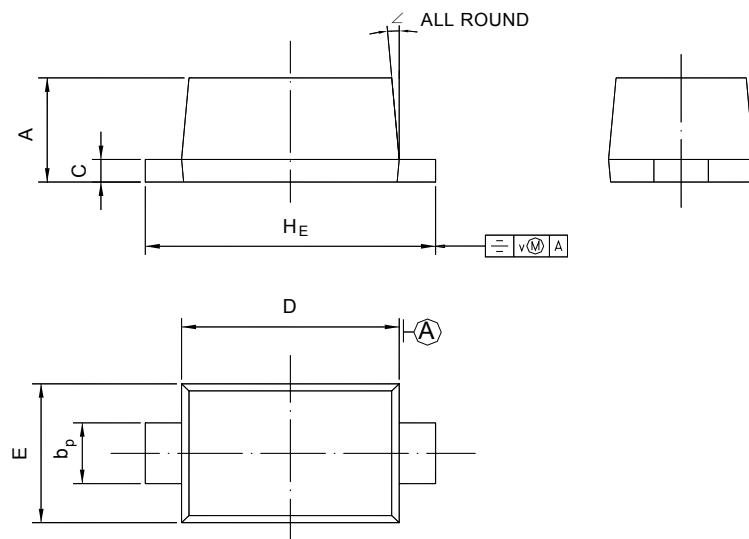
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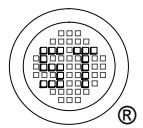
### PACKAGE OUTLINE

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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