

# BAS521WT

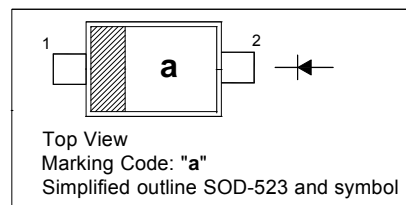
## High Voltage Switching Diode

### Applications

- high speed switching
- high voltage switching

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

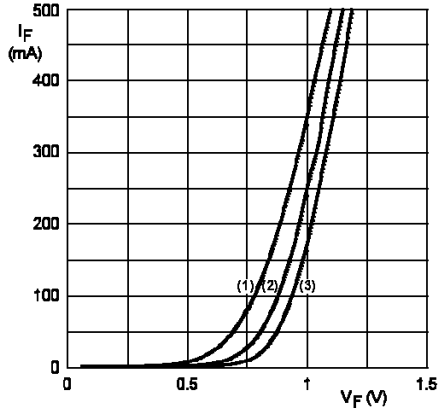
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	300	V
Reverse Voltage	$V_R$	300	V
Continuous Forward Current	$I_F$	225	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-Repetitive Peak Forward Current (1 $\mu\text{s}$ )	$I_{FSM}$	4	A
Power Dissipation	$P_{tot}$	250	mW
Junction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

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

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

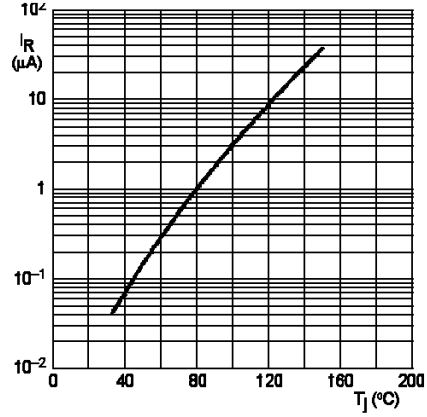
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## Typical Characteristics



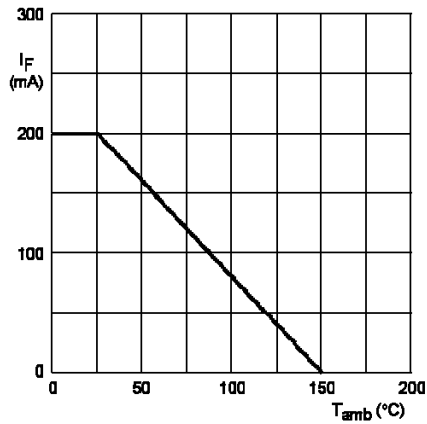
- (1)  $T_{amb} = 150\text{ }^{\circ}\text{C}$ .
- (2)  $T_{amb} = 75\text{ }^{\circ}\text{C}$ .
- (3)  $T_{amb} = 25\text{ }^{\circ}\text{C}$ .

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

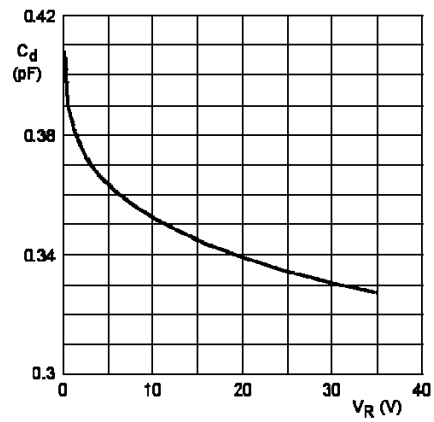


$V_R = V_{Rmax}$ ; typical values.

Reverse current as a function of junction temperature.



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



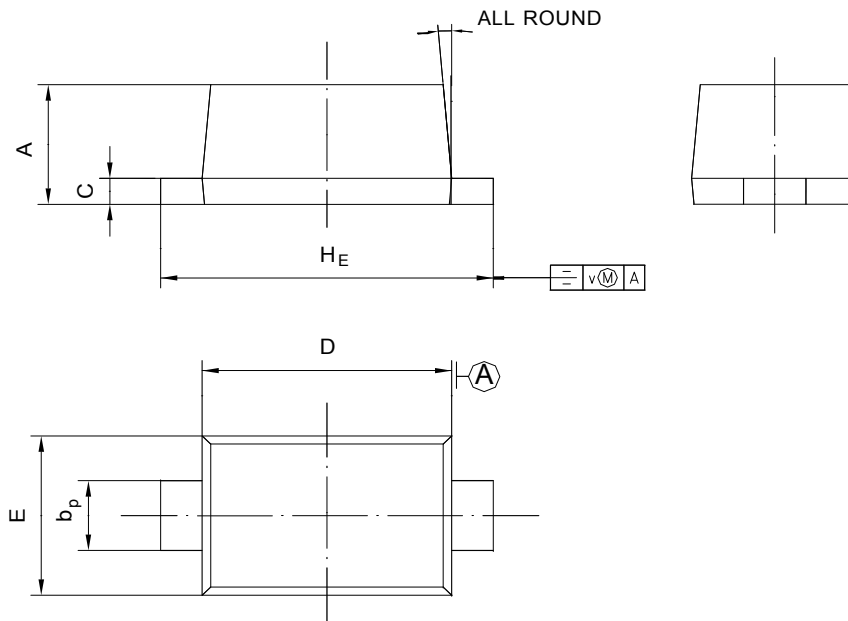
Diode capacitance as a function of reverse voltage; typical values.

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## 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 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°