

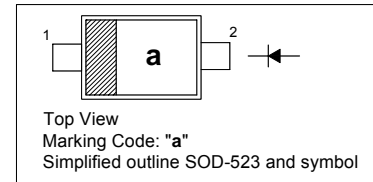
High Voltage Switching Diode

Applications

- high speed switching
- high voltage switching

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

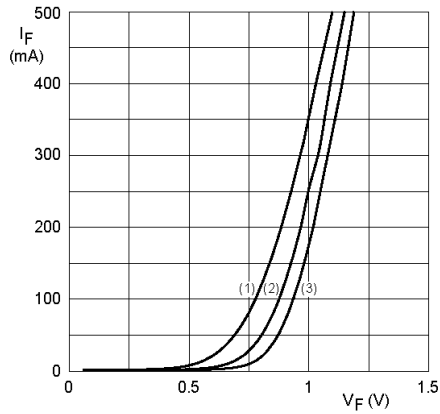


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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 μs)	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	$^\circ\text{C}$

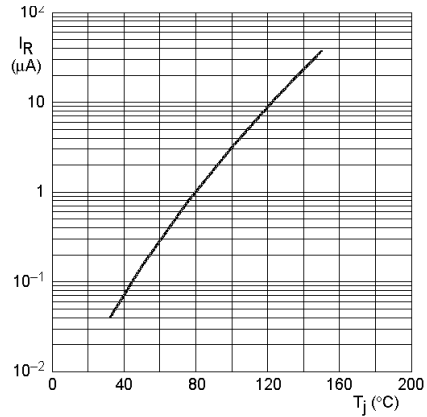
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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 $I_F = I_R = 30\text{ mA}$, $R_L = 100\text{ }\Omega$, $i_{tr} = 0.1 I_R$	t_{rr}	-	50	ns
Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_T	-	5	pF



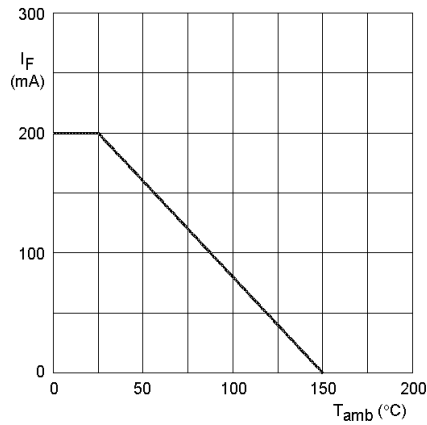
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 75\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

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

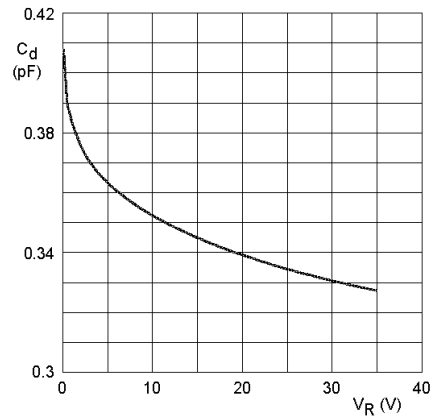


$V_R = V_{Rmax}$; typical values.

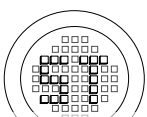
Reverse current as a function of junction temperature.



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



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



SEMTECH ELECTRONICS LTD.

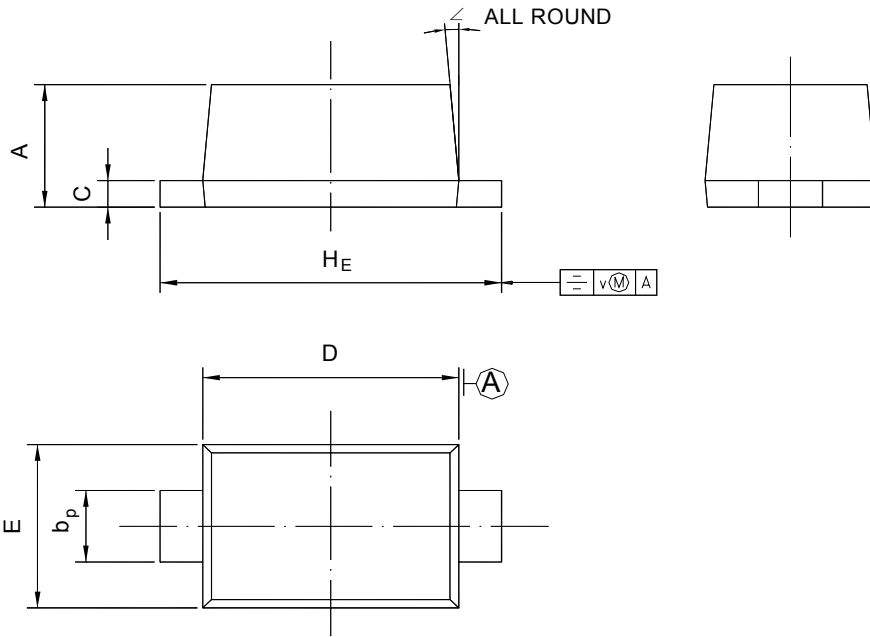
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b_p	C	D	E	H_E	V	\angle
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°