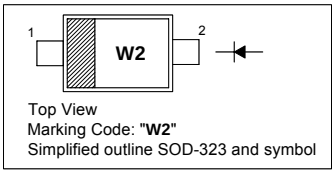
BAS216WS

High Speed Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



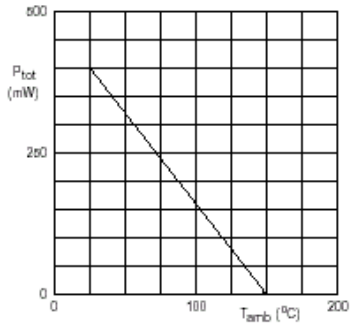
Top View
Marking Code: "**W2**"
Simplified outline SOD-323 and symbol

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	85	V
Reverse Voltage		V_R	75	V
Continuous Forward Current		I_F	250	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Current	t = 1 µs t = 1 ms t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation		P_{tot}	200	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	- 65 to + 150	°C

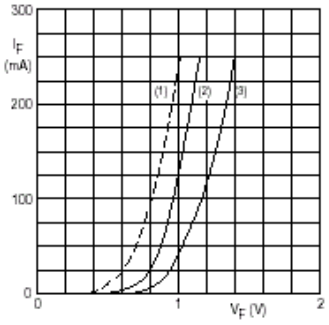
Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 0.715 0.855 1 1.25	V
Reverse Current at V_R = 25 V at V_R = 75 V at V_R = 25 V, T_J = 150 °C at V_R = 75 V, T_J = 150 °C	I_R	 30 1 30 50	 nA µA µA µA
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	1.5	pF
Reverse Recovery Time at I_F = 10 mA to I_R = 10 mA, I_R = 1 mA, R_L = 100 Ω	t_{rr}	4	ns



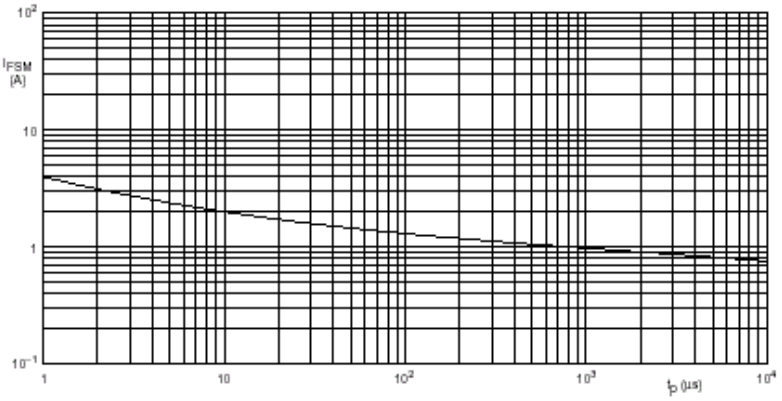
Device mounted on an FR4 printed-circuit board.

Maximum permissible total power dissipation as a function of ambient temperature.



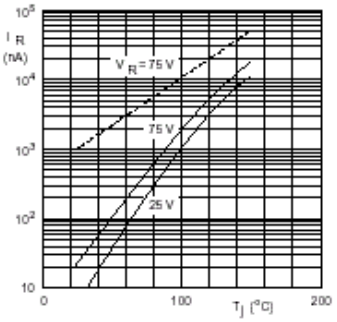
(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Forward current as a function of forward voltage.



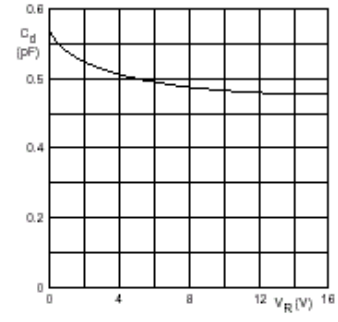
Based on square wave currents.
T_j = 25 °C prior to surge.

Maximum permissible non-repetitive peak forward current as a function of pulse duration.



Dotted line: maximum values.
Solid lines: typical values.

Reverse current as a function of junction temperature.

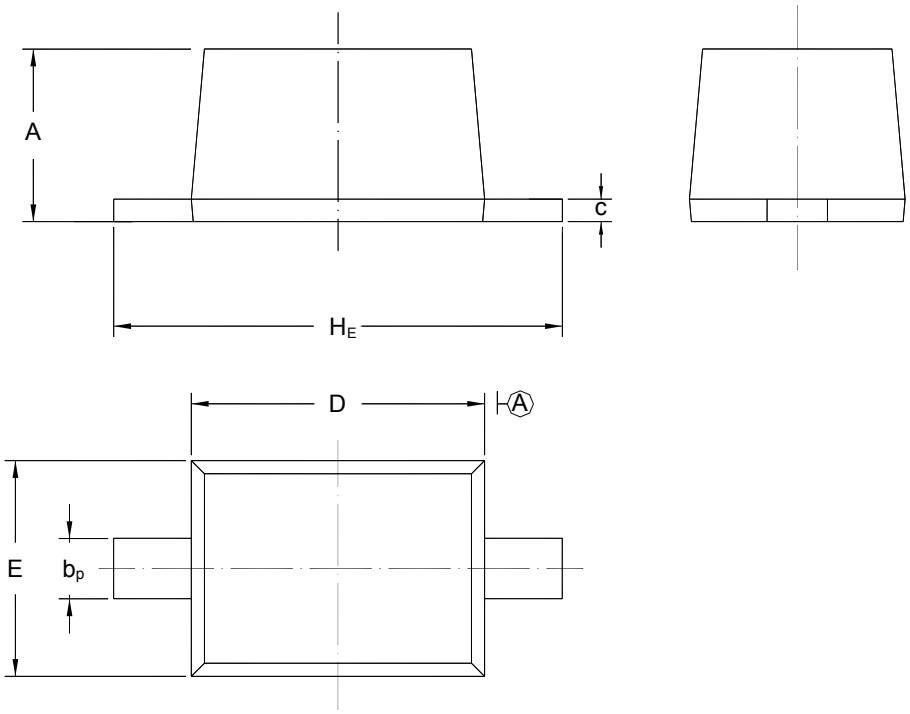


f = 1 MHz; T_j = 25 °C.

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

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30