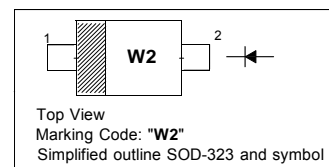


BAS216WS Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



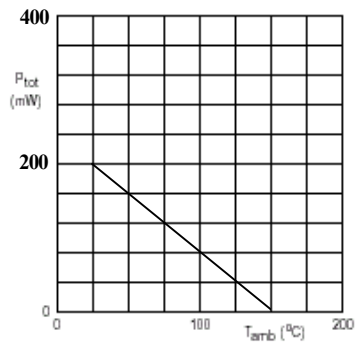
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	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 Surge Current	I_{FSM}	at $t = 1\text{ s}$ 0.5	A
		at $t = 1\text{ ms}$ 1	
		at $t = 1\text{ }\mu\text{s}$ 4	
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

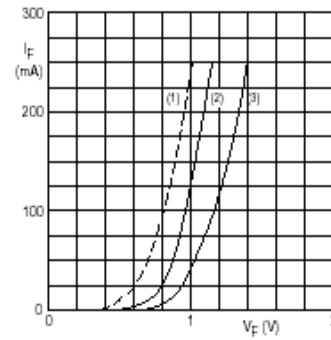
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	0.715	V
		0.855	
		1	
		1.25	
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$ at $V_R =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

Typical Characteristics



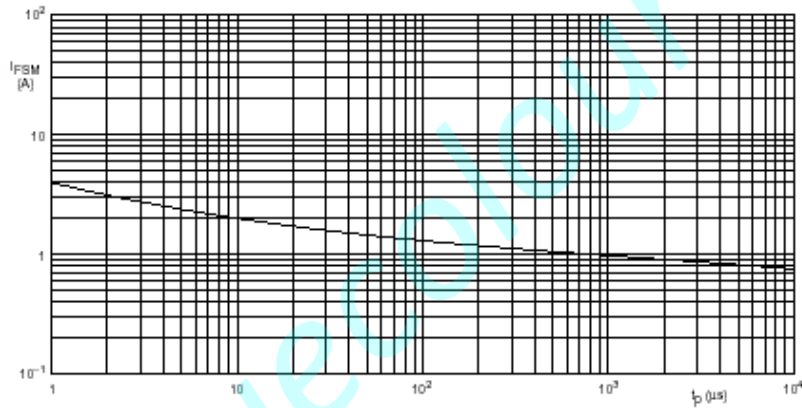
Device mounted on an FR4 printed-circuit board.

Fig. 2 Maximum permissible total power dissipation as a function of ambient



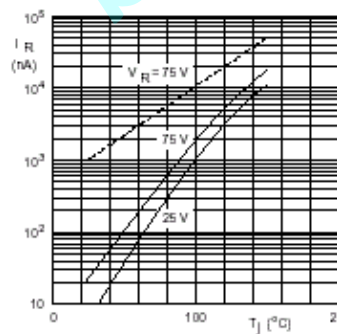
(1) $T_J = 100^\circ\text{C}$; typical values.
 (2) $T_J = 25^\circ\text{C}$; typical values.
 (3) $T_J = 25^\circ\text{C}$; maximum values.

Fig. 3 Forward current as a function of forward



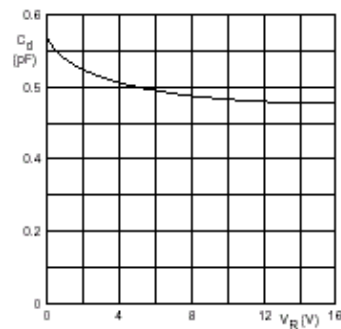
Based on square wave currents.
 $T_J = 25^\circ\text{C}$ prior to surge.

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



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

Reverse current as a function of junction temperature.



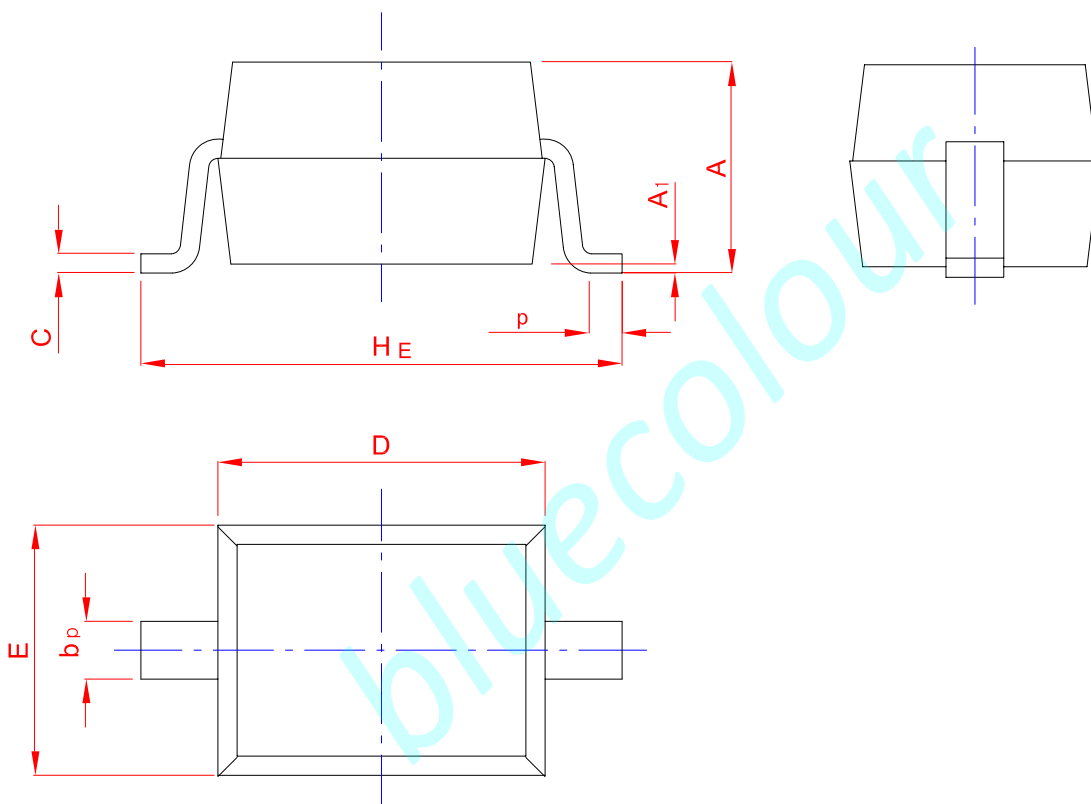
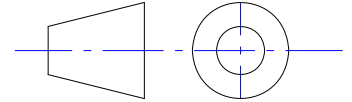
$f = 1\text{ MHz}$; $T_J = 25^\circ\text{C}$.

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	A ₁	L _p
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20