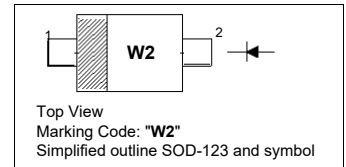


BAS216W Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



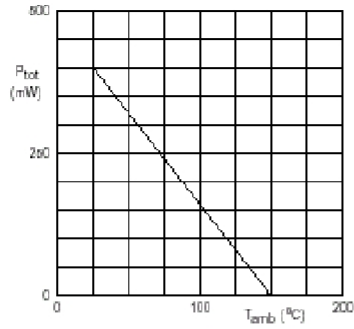
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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}	0.5	A
at $t = 1\text{ s}$		1	
at $t = 1\text{ ms}$		4	
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

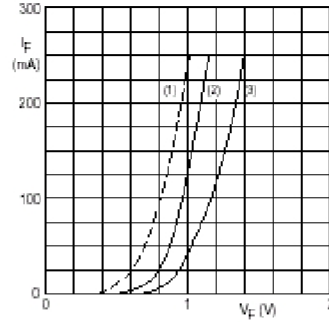
Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	0.715	V
at $I_F = 1\text{ mA}$		0.855	
at $I_F = 10\text{ mA}$		1	
at $I_F = 150\text{ mA}$		1.25	
Reverse Current	I_R	30	nA
at $V_R = 25\text{ V}$		1	μA
at $V_R = 75\text{ V}$		30	μA
at $V_R = 25\text{ V}, T_J = 150^\circ\text{C}$		50	μA
Diode Capacitance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

Typical Characteristics



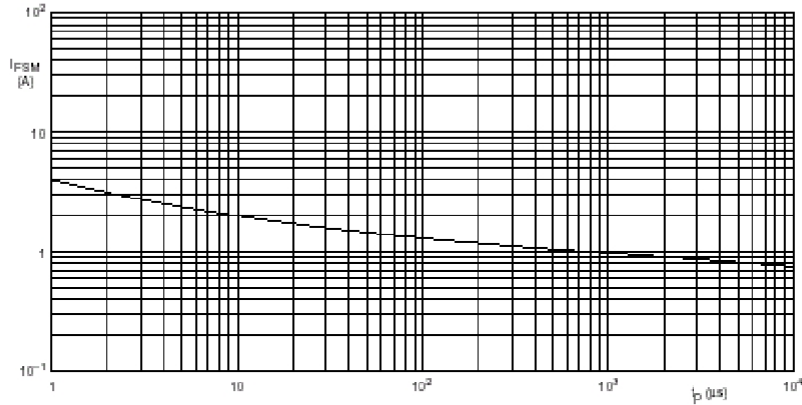
Device mounted on an FR4 printed-circuit board.

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



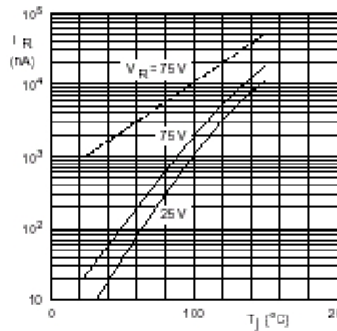
(1) $T_j = 180\text{ }^\circ\text{C}$; typical values.
 (2) $T_j = 25\text{ }^\circ\text{C}$; typical values.
 (3) $T_j = 25\text{ }^\circ\text{C}$; maximum values.

Forward current as a function of forward voltage.



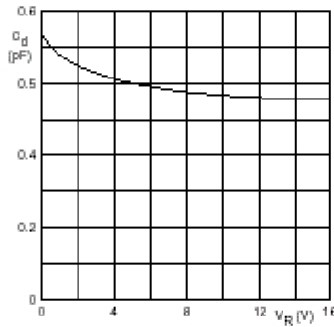
Based on square wave currents.
 $T_j = 25\text{ }^\circ\text{C}$ prior to surge.

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.



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

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

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123

