

BAS16WS

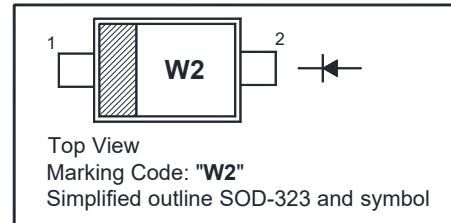
Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

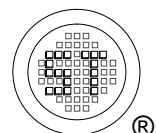


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Forward Current (Continuous)	I_F	250	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5 1 2	A
		at $t = 1\text{ s}$	
		at $t = 1\text{ ms}$	
		at $t = 1\text{ }\mu\text{s}$	
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	V_F	0.715	V
at $I_F = 1\text{ mA}$		0.855	
at $I_F = 10\text{ mA}$		1	
at $I_F = 50\text{ mA}$		1.25	
Reverse Leakage Current	I_R	1	μA
at $V_R = 75\text{ V}$		30	
at $V_R = 25\text{ V}, T_j = 150\text{ }^\circ\text{C}$		50	
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 $I_F = 10\text{ mA}, V_R = 6\text{ V}, R_L = 100\text{ }\Omega, I_{rr} = 0.1 \times I_R$			



Electrical Characteristics Curves

Fig 1. Power Dissipation vs. Temperature

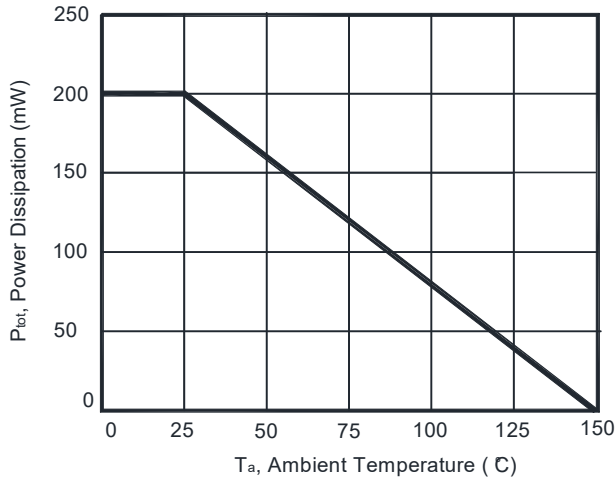


Fig 2. Total Capacitance vs. Reverse Voltage

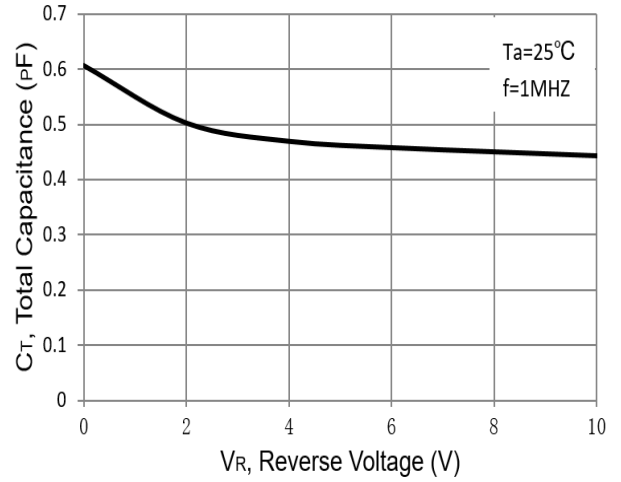


Fig 3. Reverse Current vs. Reverse Voltage

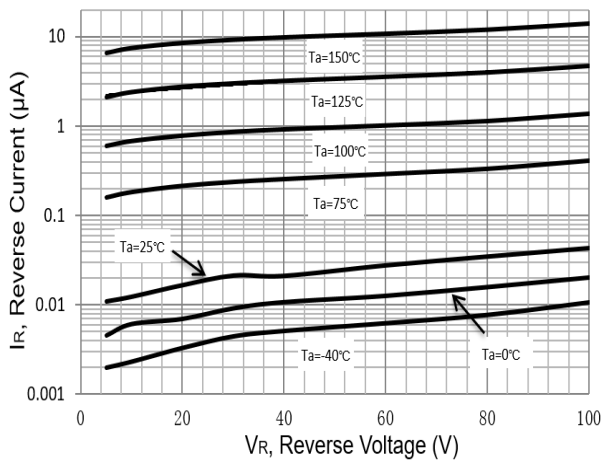
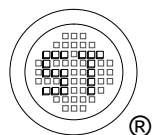
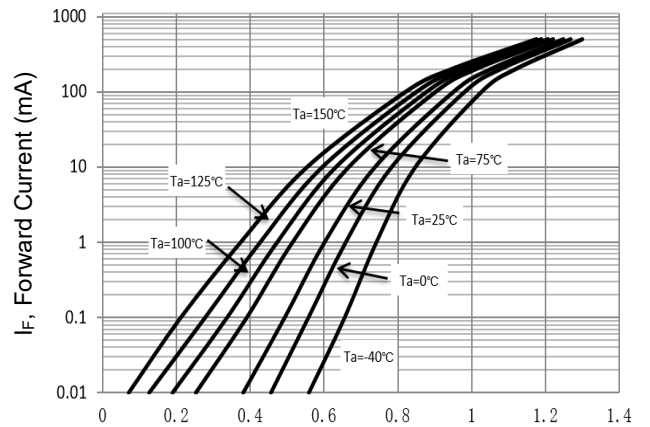


Fig 4. Forward Characteristics

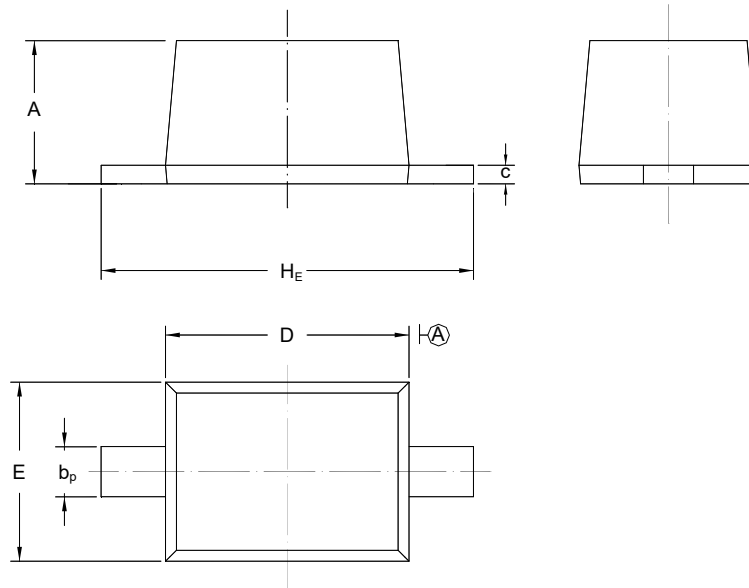


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PACKAGE OUTLINE

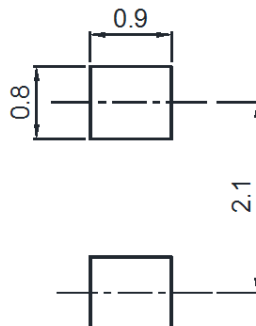
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" W2 " = Part No.

Font type: Arial

