

BAS216W-AH

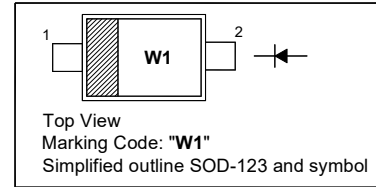
Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 is Available
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

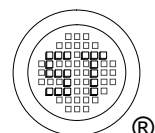


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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 1 4	A
		at $t = 1$ s at $t = 1$ ms at $t = 1$ μ s	
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 $T_a = 25^\circ\text{C}$

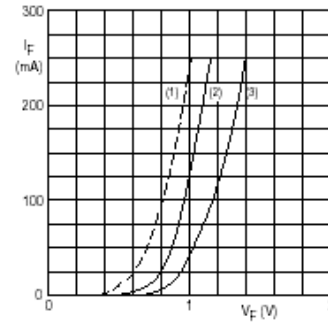
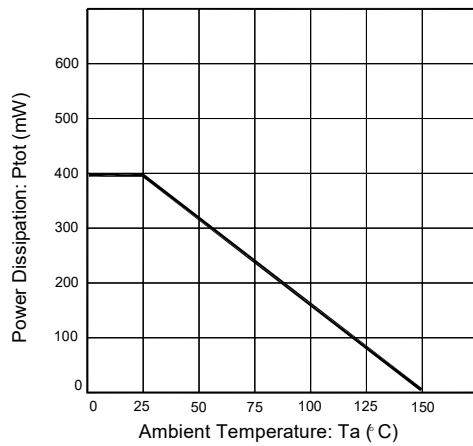
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	V_F	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25$ V at $V_R = 75$ V at $V_R = 25$ V, $T_j = 150^\circ\text{C}$ at $V_R = 75$ V, $T_j = 150^\circ\text{C}$	I_R	30 1 30 50	nA μ A μ A μ A
Diode Capacitance at $V_R = 0$ V, $f = 1$ MHz	C_{tot}	1.5	pF
Reverse Recovery Time at $I_F = 10$ mA, $V_R = 6$ V, $I_{rr} = 0.1 \times I_R$, $R_L = 100 \Omega$	t_{rr}	4	ns



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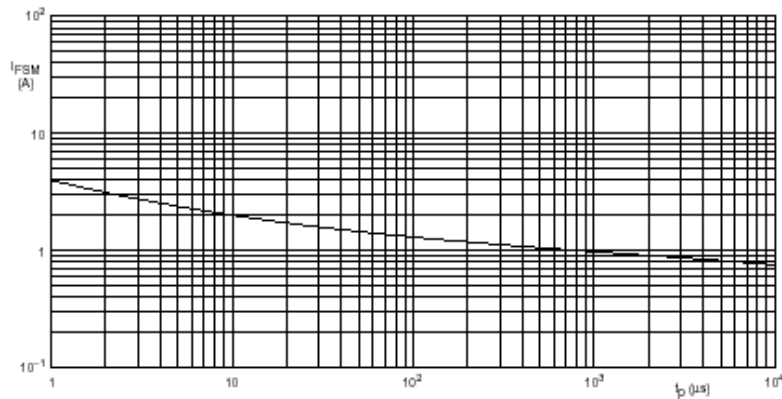
Electrical Characteristics Curves

Power Dissipation vs Ambient Temperature



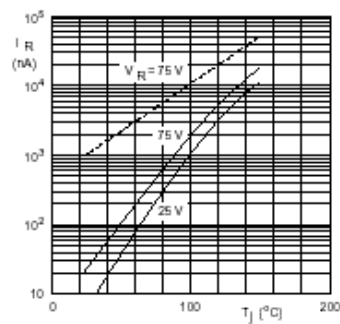
- (1) $T_j = 150^\circ\text{C}$; typical values.
 (2) $T_j = 25^\circ\text{C}$; typical values.
 (3) $T_j = 25^\circ\text{C}$; maximum values.

Forward current as a function of forward voltage.



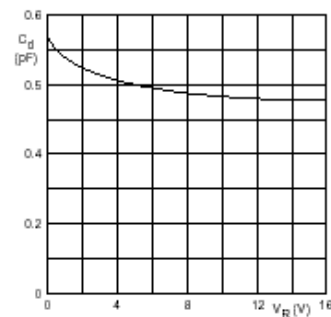
Based on square wave currents.
 $T_j = 25^\circ\text{C}$ prior to surge.

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



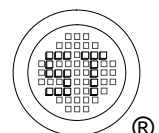
Dotted line: maximum values.
 Solid line: typical values.

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.

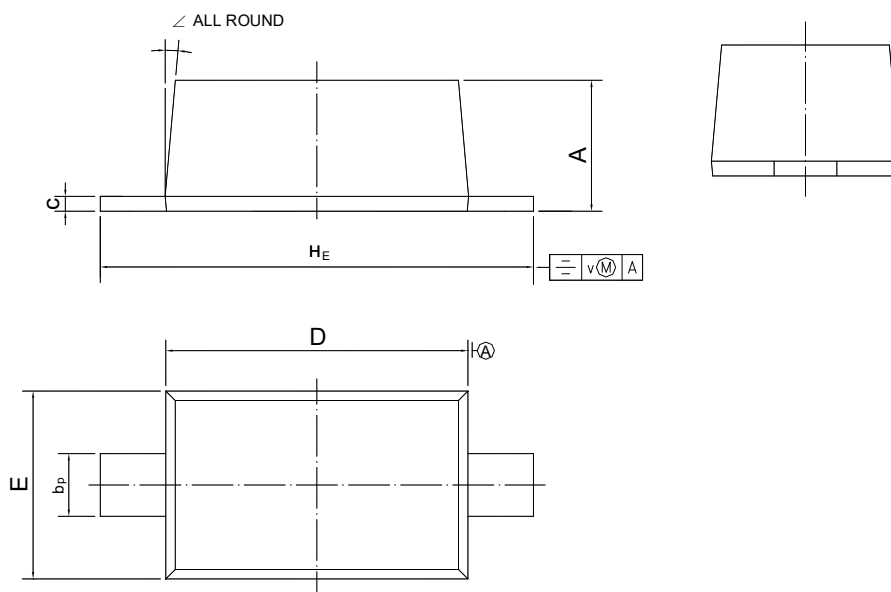


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PACKAGE OUTLINE

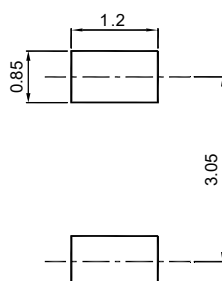
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	c	D	E	H _E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

"•" = HAF (Halogen and Antimony Free(HAF))

"W1" = Part No

"III" = Cathode line

Font type: Arial

