

BAS216WT-AH

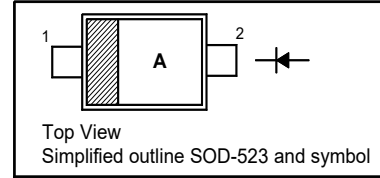
Silicon Epitaxial Planar Switching Diode

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



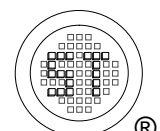
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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

Thermal Resistance Ratings

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	833	$^\circ\text{C/W}$

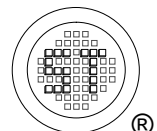
¹⁾ Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.



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

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	715 855 1000 1250	mV
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_J = 150^\circ\text{C}$ at $V_R = 75\text{ V}, T_J = 150^\circ\text{C}$	I_R	30 1 30 50	nA μA μA μA
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_T	2	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R, I_F = 10\text{ mA}, V_R = 6\text{ V}, R_L = 100\ \Omega$	t_{rr}	4	ns



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Electrical Characteristics Curves

Fig 1. Power Dissipation vs. Temperature

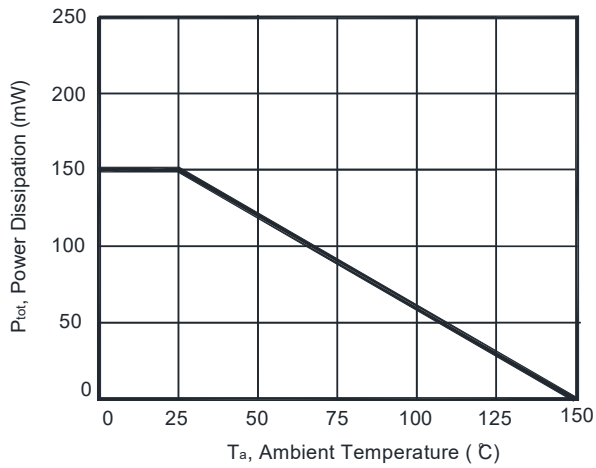


Fig 2. Total Capacitance vs. Reverse Voltage

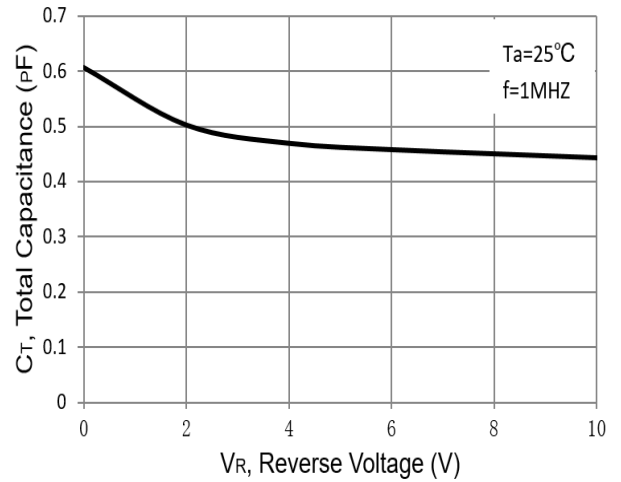


Fig 3. Reverse Current vs. Reverse Voltage

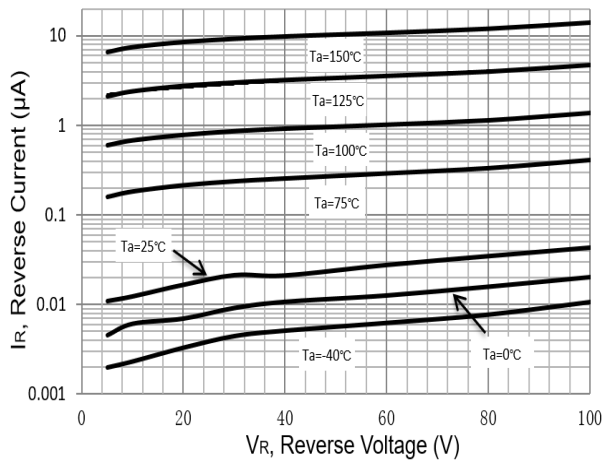
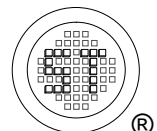
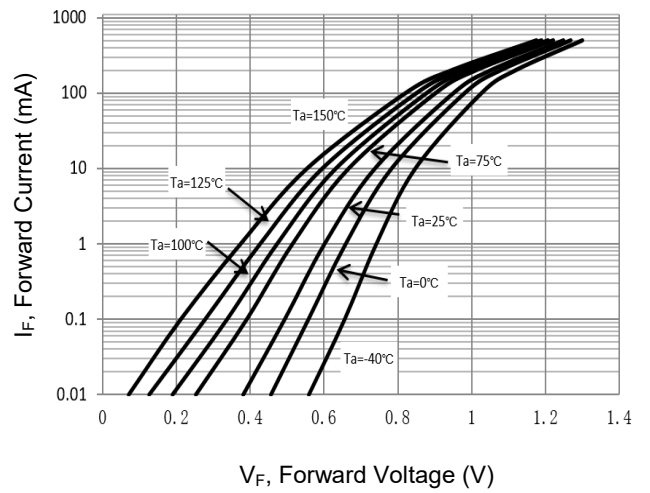


Fig 4. Forward Characteristics

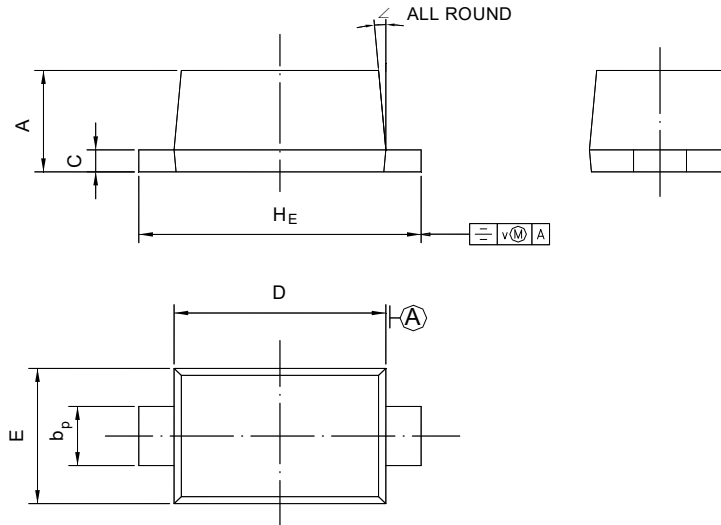


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PACKAGE OUTLINE

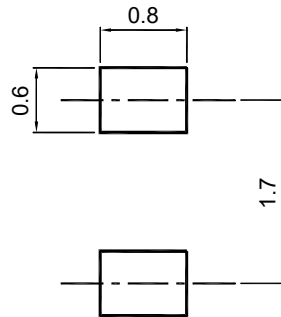
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

- " A " = Part No.
 - " III " = Cathode line
 - " • " = HAF (Halogen and Antimony Free)
- Font type: Arial

