

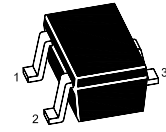
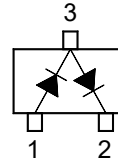
BAV199W-AH

Silicon Epitaxial Planar Switching Diode

For low leakage current applications

Feature

- AEC-Q101 is Available
- Very low leakage current
- Medium speed switching times
- Series pair configuration
- Halogen and Antimony Free(HAF), RoHS compliant



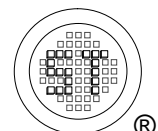
SOT-323 Plastic Package

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	85	V
Continuous Forward Current	I_F	160	mA
Single Diode		140	
Double Diode		140	
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
		1	
		0.5	
at $t = 1 \mu\text{s}$			
at $t = 1 \text{ ms}$			
at $t = 1 \text{ s}$			
Power Dissipation	P_{tot}	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	85	-	V
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	-	0.9	V
		-	1	
		-	1.1	
		-	1.25	
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$	I_R	-	5	nA
		-	80	
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	t_{rr}	-	3	μs



BAV199W-AH

Electrical Characteristics Curves

Fig 1. Power Derating Curve

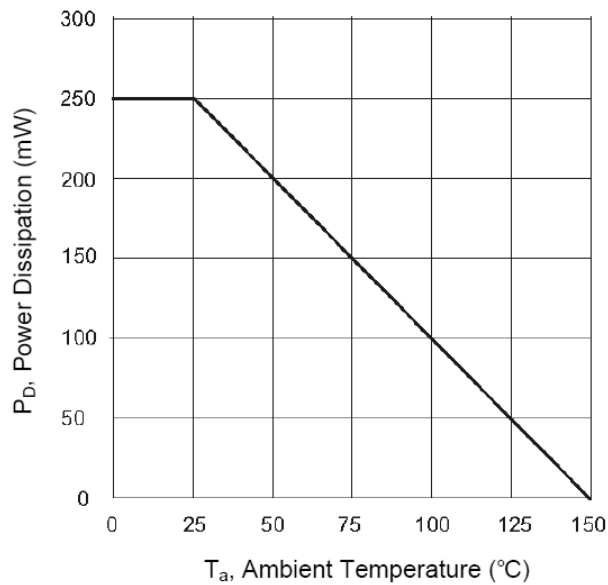


Fig 2. Current Derating Curve

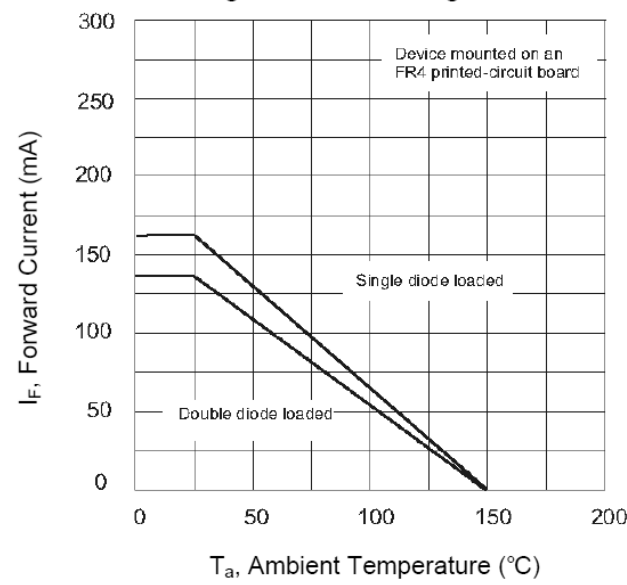


Fig 3. Typical Forward Characteristics

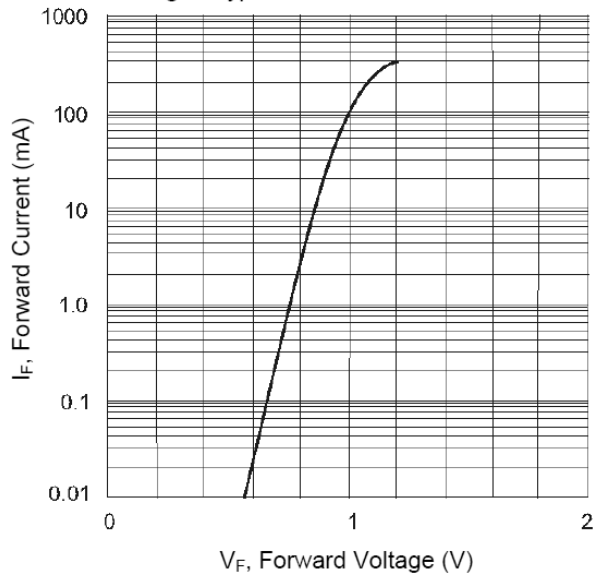
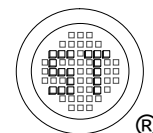
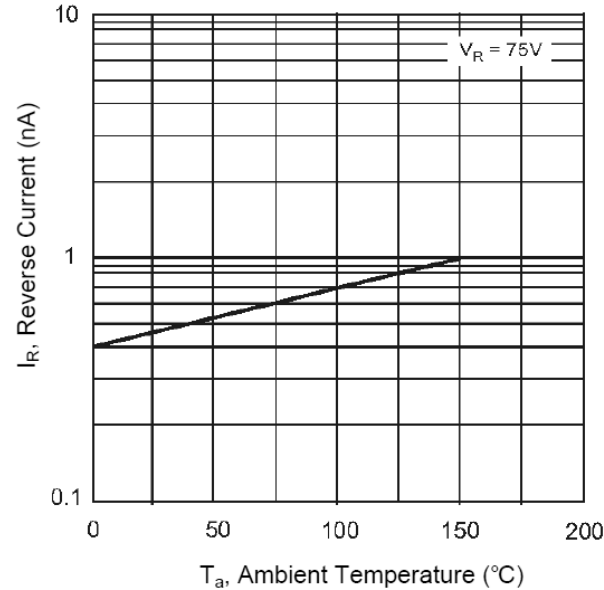
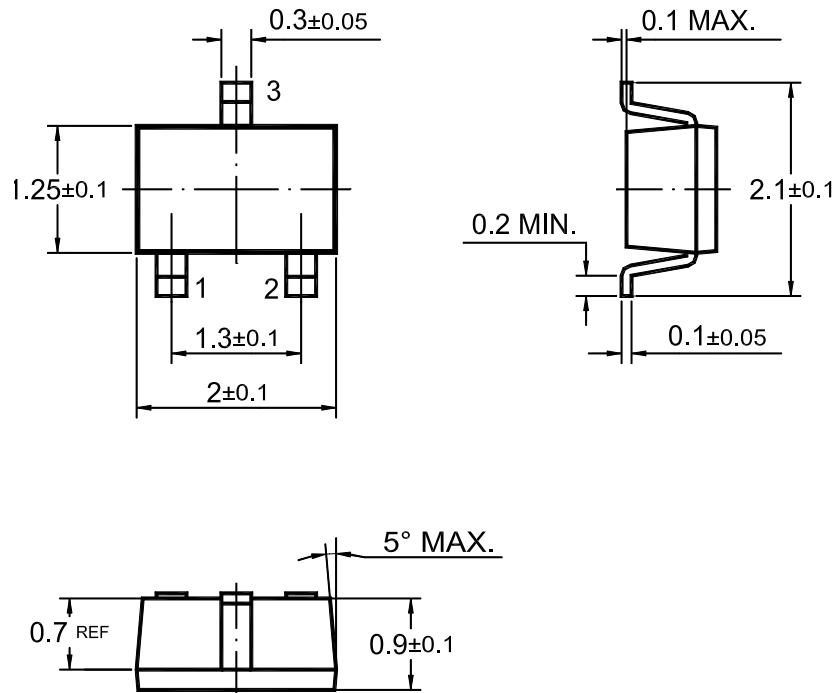


Fig 4. Typical Reverse Characteristics

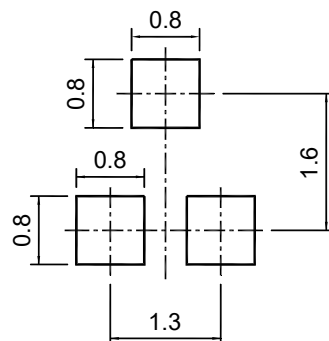


PACKAGE OUTLINE(Dimensions in mm)

SOT-323



Recommended Soldering Footprint



Packing information

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

Marking information

" JY " = Part No.
 " • " = HAF (Halogen and Antimony Free)
 " YM " = Date Code Marking
 " Y " = Year
 " M " = Month
 Font type: Arial

