

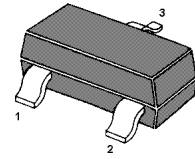
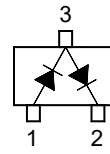
BAV199-AH

Silicon Epitaxial Planar Diode

Low leakage switching double diode
For low leakage current applications

Feature

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



SOT-23 Plastic Package

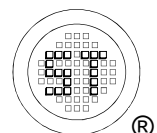
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	85	V
Continuous Forward Current	I_F	160 140	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4 1 0.5	A
Power Dissipation	P_D	250	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	500	$^\circ\text{C/W}$

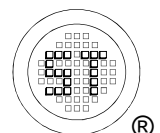
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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

Parameter	Symbol	Min.	Typ.	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 1 1.1 1.25	V
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}$, $T_j = 150^\circ\text{C}$	I_R I_R	- -	- -	5 80	nA
Total Capacitance at $V_R = 0$, $f = 1 \text{ MHz}$	C_T	-	2	-	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100 \Omega$	t_{rr}	-	-	3	μs



Electrical Characteristics Curves

Fig 1. Power Derating Curve

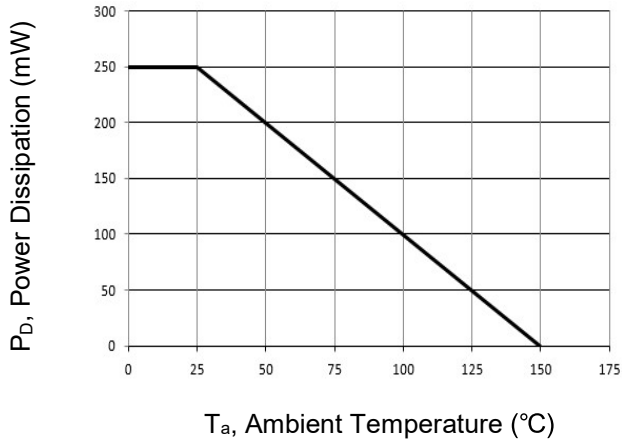


Fig 2. Capacitance Characteristics Curve

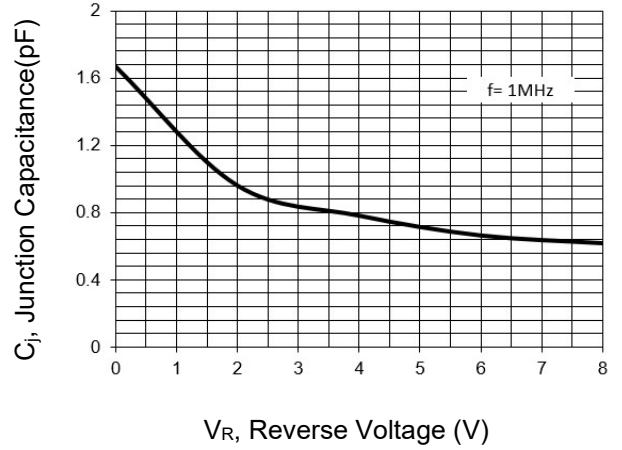


Fig 3. Reverse Characteristics Curve

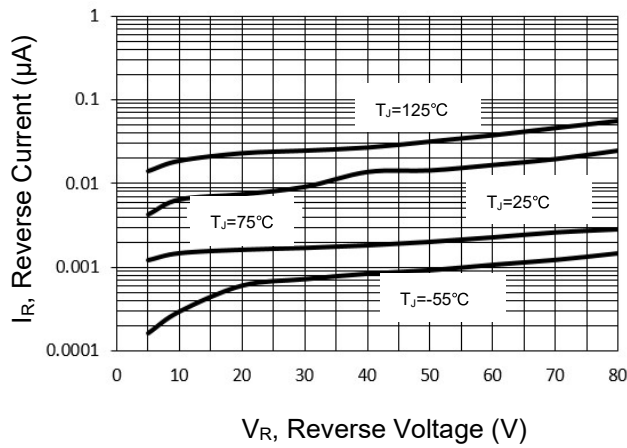
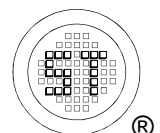
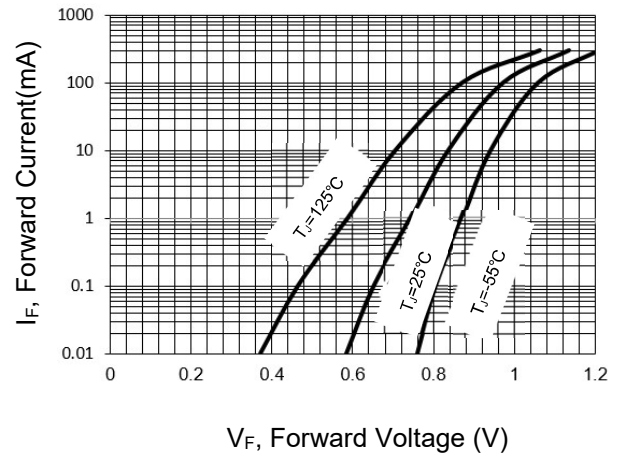


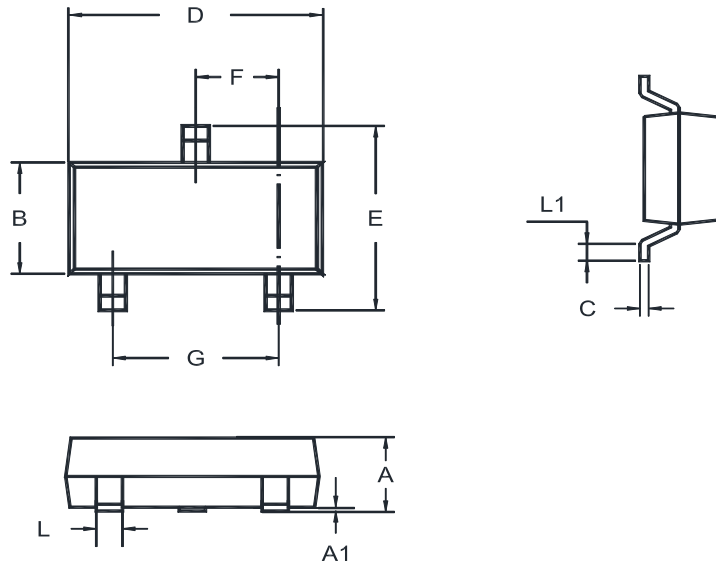
Fig 4. Forward Characteristics Curve



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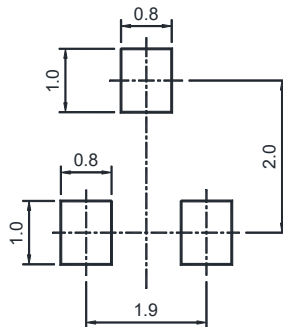
Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

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

