

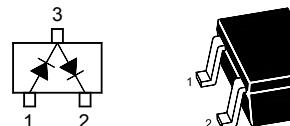
# BAV199W

## Silicon Epitaxial Planar Diode

Low leakage switching double diode  
For low leakage current applications

### Feature

- Very low leakage current
- Medium speed switching times
- Series pair configuration



SOT-323 Plastic Package

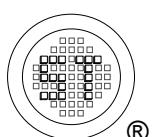
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### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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



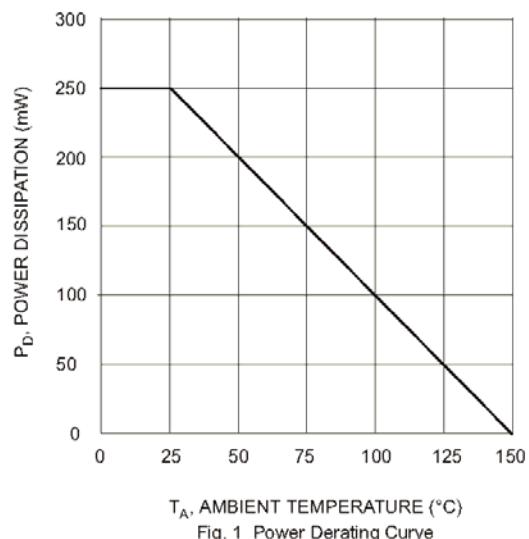


Fig. 1 Power Derating Curve

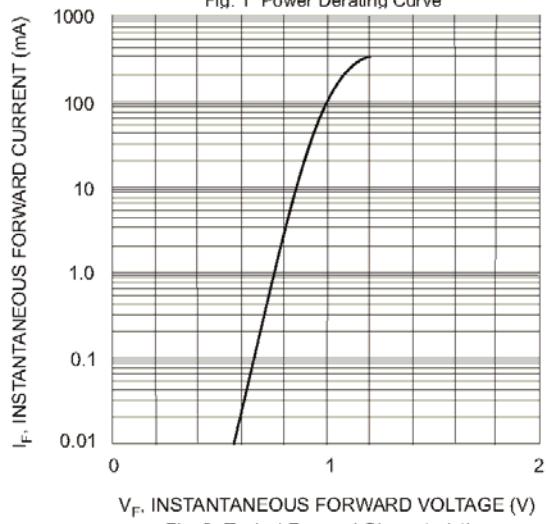


Fig. 3 Typical Forward Characteristics

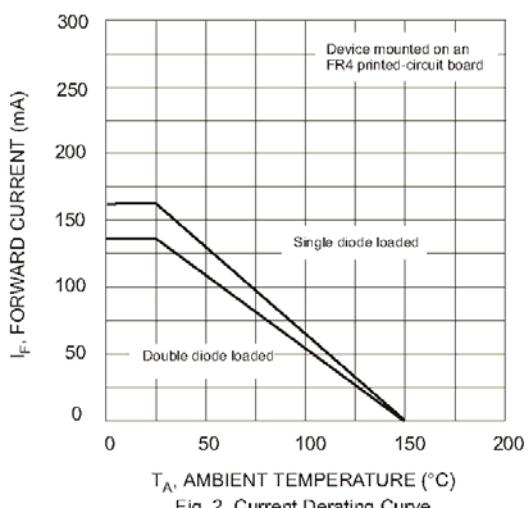


Fig. 2 Current Derating Curve

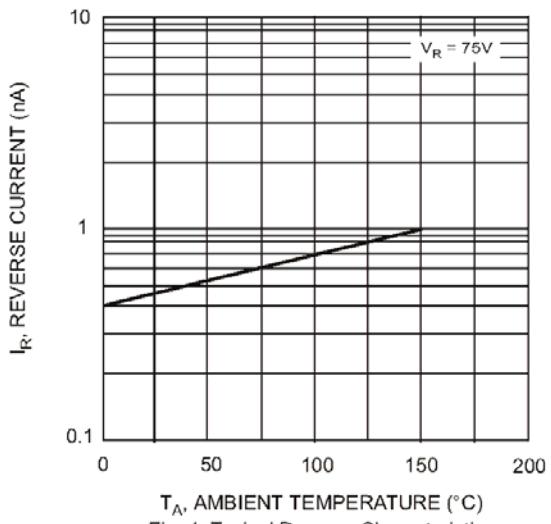
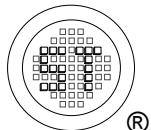


Fig. 4 Typical Reverse Characteristics



Dated : 15/06/2009