

## BAV199

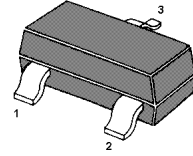
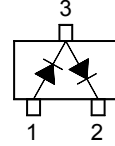
### Silicon Epitaxial Planar Diode

Low leakage switching double diode

For low leakage current applications

#### Feature

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



Marking Code: **PX**  
TO-236 (SOT-23) Plastic Package

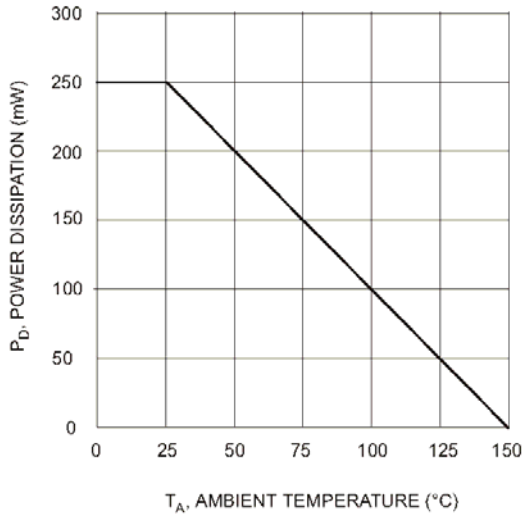
#### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

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
		Single Diode Double Diode	
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	4 1 0.5	A
		at $t = 1\text{ }\mu\text{s}$ at $t = 1\text{ ms}$ at $t = 1\text{ s}$	
Power Dissipation	$P_D$	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	$^\circ\text{C}$

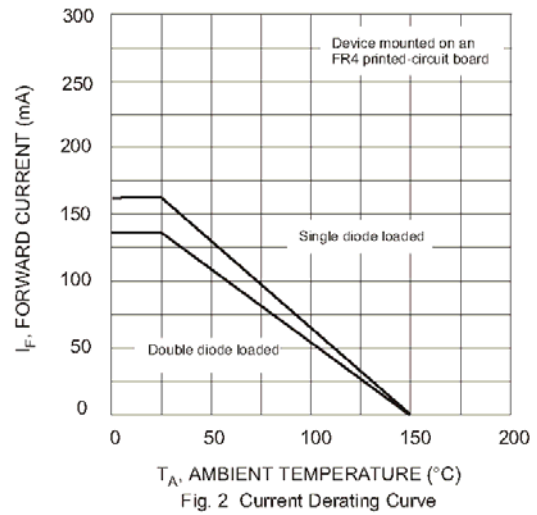
#### Electrical Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ )

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

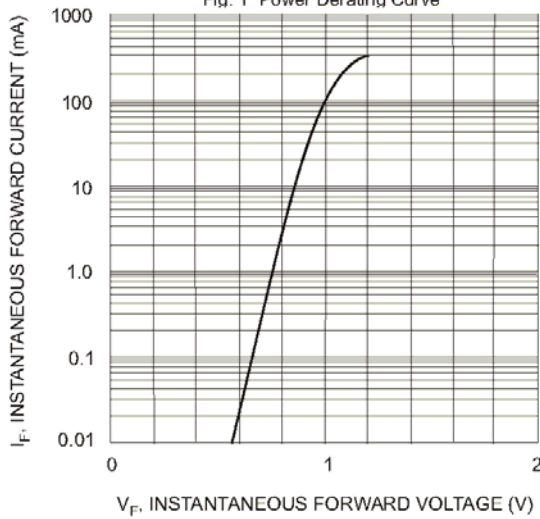
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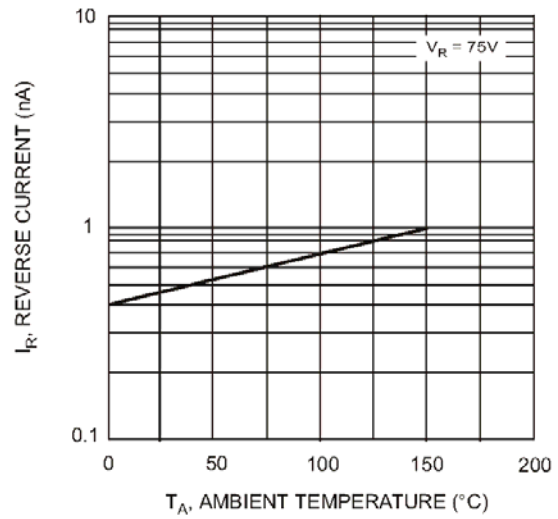
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 2 Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 3 Typical Forward Characteristics



$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 4 Typical Reverse Characteristics