

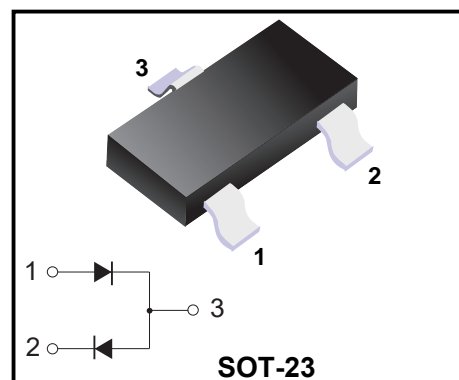
Silicon Epitaxial Planar Diode

FEATURES

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

Application

- ♦ Low leakage switching double diode
- ♦ For low leakage current applications



Marking Code

BAV199

JY

Absolute Maximum Ratings (Ta = 25 °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			
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
		1	
		0.5	
at t = 1 μs			
at t = 1 ms			
at t = 1 s			
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

Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu A$	$V_{(BR)R}$	85	-	-	V
Forward Voltage	V_F	-	-	0.9	V
at $I_F = 1 \text{ mA}$				1	
at $I_F = 10 \text{ mA}$				1.1	
at $I_F = 50 \text{ mA}$				1.25	
Reverse Current at $V_R = 75 \text{ V}$	I_R	-	-	5	nA
at $V_R = 75 \text{ V}, T_j = 150 \text{ °C}$		-	-	80	
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

Ratings and Characteristic Curves

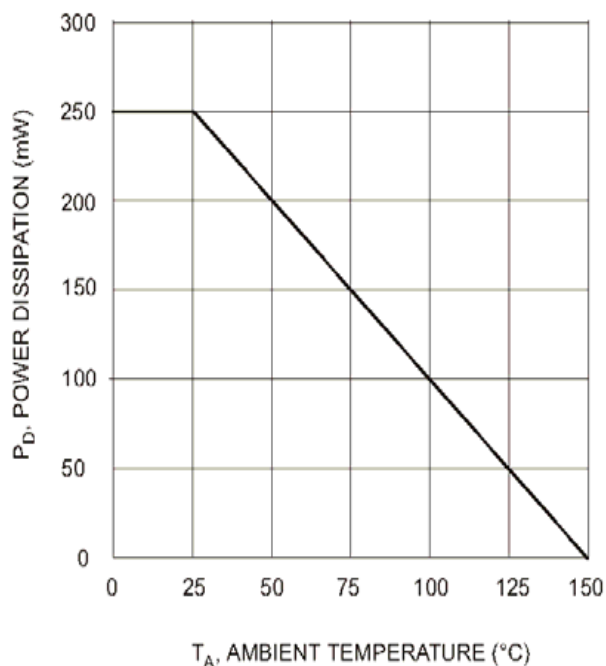


Fig. 1 Power Derating Curve

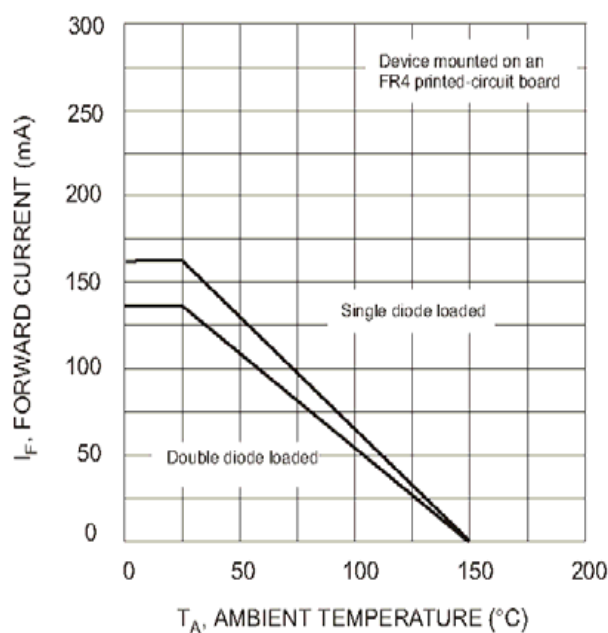


Fig. 2 Current Derating Curve

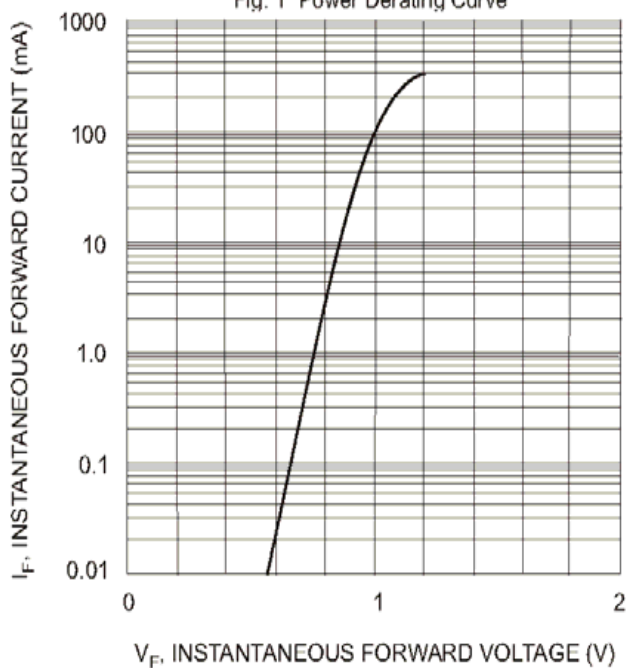


Fig. 3 Typical Forward Characteristics

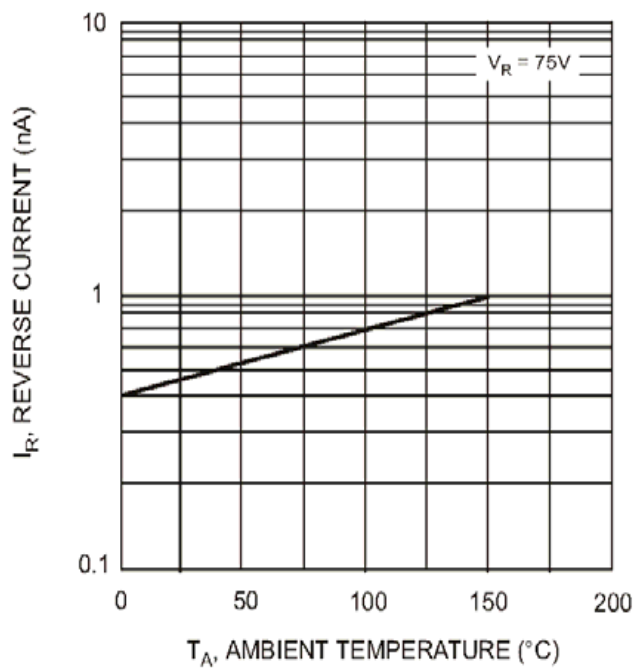


Fig. 4 Typical Reverse Characteristics

Ordering information

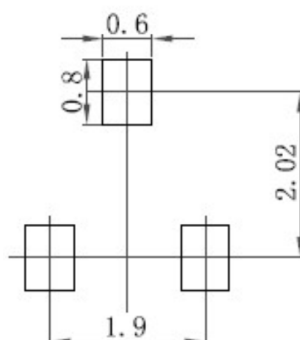
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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