



BAV116W

Silicon Epitaxial Planar Low Leakage Diode

Features

- Very low leakage current
- Medium speed switching times

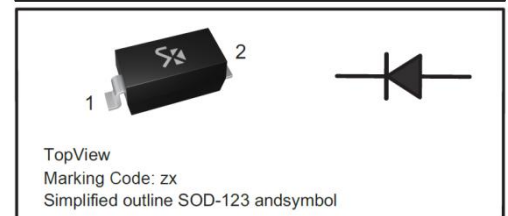
Applications

- For low leakage current applications

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter		Symbol	Condition	Unit
Peak Repetitive Reverse Voltage		V_{RRM}	130	V
Continuous Forward Current		I_{FM}	215	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	at $t = 1\mu\text{s}$	I_{FSM}	4	A
	at $t = 1\text{ms}$		1	
	at $t = 1\text{s}$		0.5	
Power Dissipation		P_D	250	mW
Thermal Resistance Junction to Ambient Air		$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature range		T_J, T_{STG}	$-65 \sim +150$	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 100\mu\text{A}$	130		V
Forward Voltage	V_F	$I_F = 1\text{mA}$		0.9	V
		$I_F = 10\text{mA}$		1	
		$I_F = 50\text{mA}$		1.1	
		$I_F = 150\text{mA}$		1.25	
Reverse Voltage Leakage Current	I_R	$V_R = 75\text{V}$		5	nA
		$V_R = 75\text{V}, T_J = 125^\circ\text{C}$		80	
Total Capacitance	C_T	$V_R = 0, f = 1\text{MHz}$		5	pF
Reveres Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, R_L = 100\Omega$ $I_{rr} = 0.1 \times I_R$		3	μs



Typical Characteristics

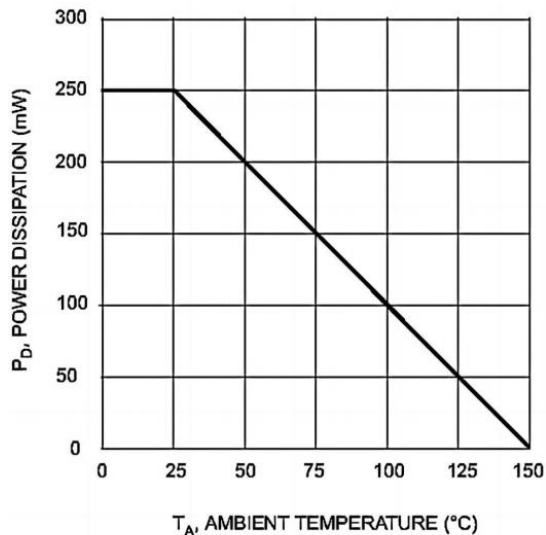


Fig. 1 Power Derating Curve

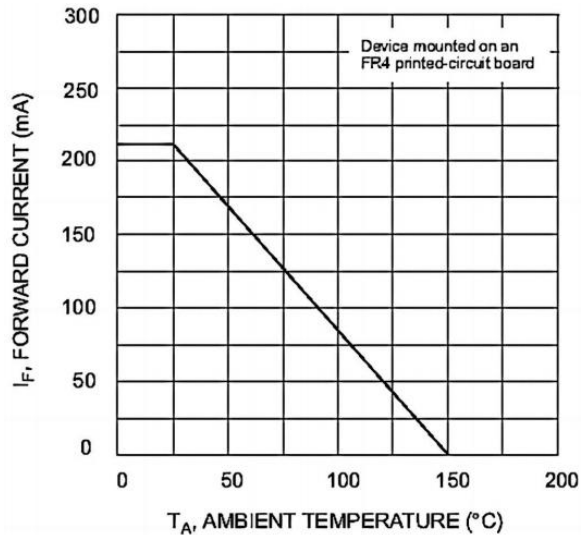


Fig. 2 Current Derating Curve

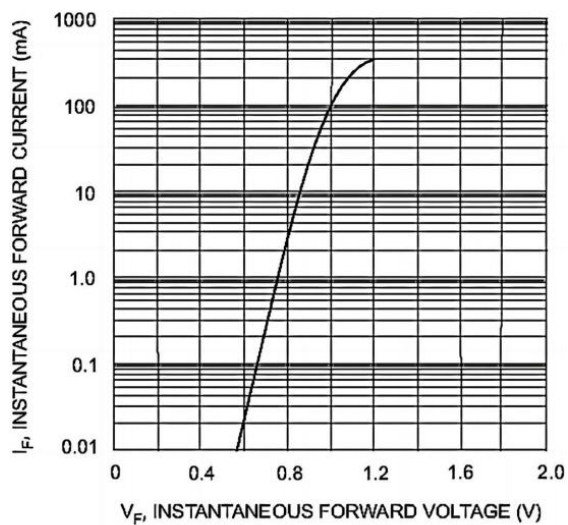


Fig. 3 Typical Forward Characteristics

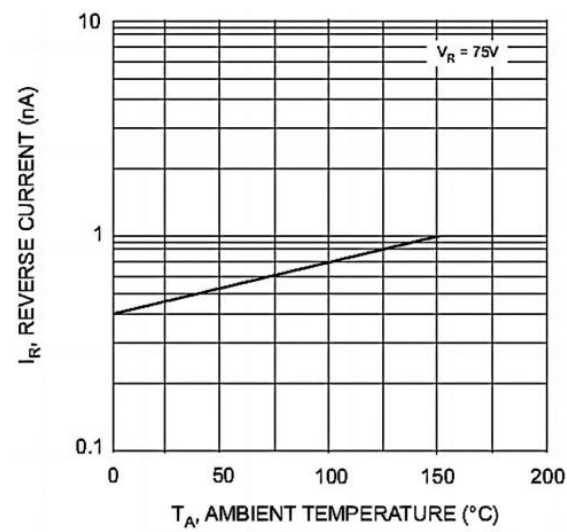


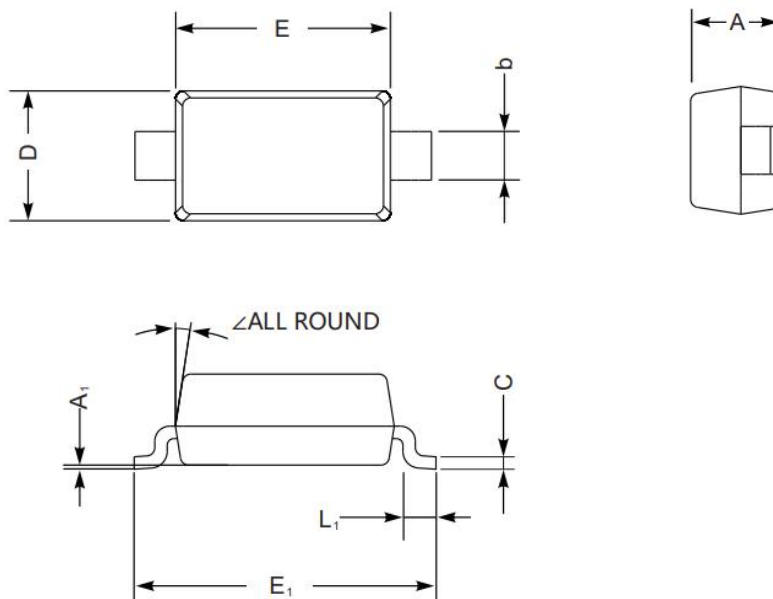
Fig. 4 Typical Reverse Characteristics



Package Information

SOD-123

Dimensions in mm



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size

