Features

- Average Rectified Forward Current:$I_{F(AV)}$= 250mA
- Power Dissipation of 400mW



SOD-123



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT41ZFILM	SOD-123	T5	3000

Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current (at t = 1 μs)	I_{FSM}	4	A
Power Dissipation	P_d	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 5 mA at I_F = 10 mA at I_F = 100 mA at I_F = 150 mA	V_F	 0.62 - - -	 0.72 0.855 1 1.25	V
Reverse Leakage Current at V_R = 80 V at V_R = 20 V at V_R = 75 V, T_J = 150 °C at V_R = 25 V, T_J = 150 °C	I_R	 - - - -	 100 25 50 30	 nA nA μA μA
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	80	-	V
Total Capacitance at V_R = 0.5 V, f = 1 MHz	C_{tot}	-	4	pF
Reverse Recovery Time at I_F = I_R = 10 mA, I_{rr} = 0.1 X I_R , R_L = 100 Ω	t_{rr}	-	4	ns

Typical Characteristics

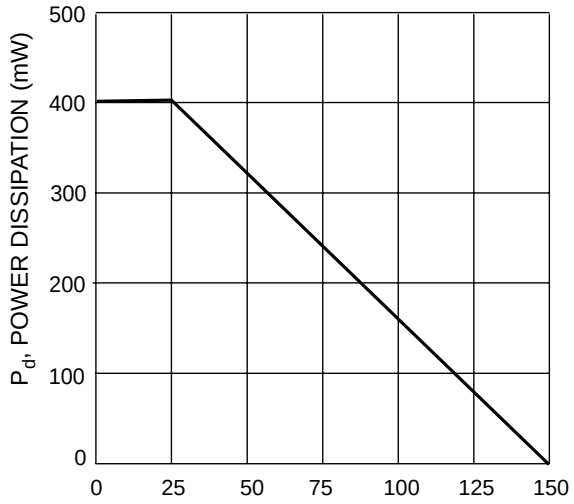


Fig. 1 Power Derating Curve

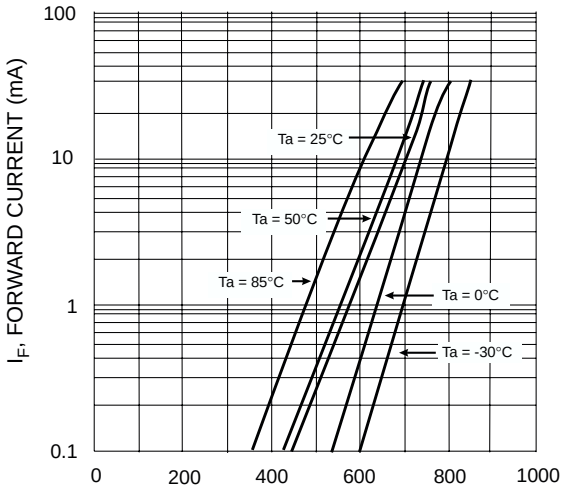


Fig. 2 Typical Forward Characteristics

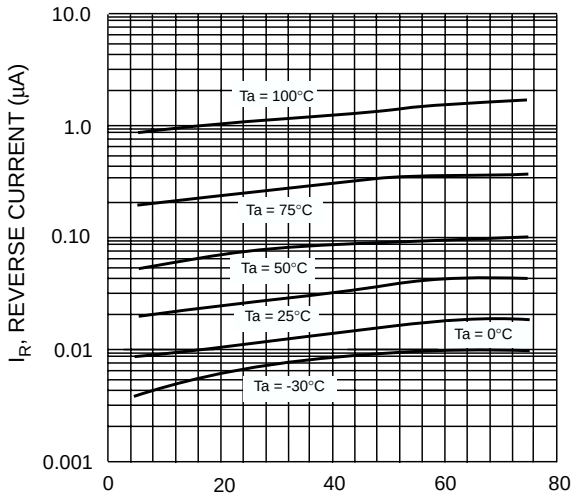


Fig. 3 Typical Reverse Characteristics

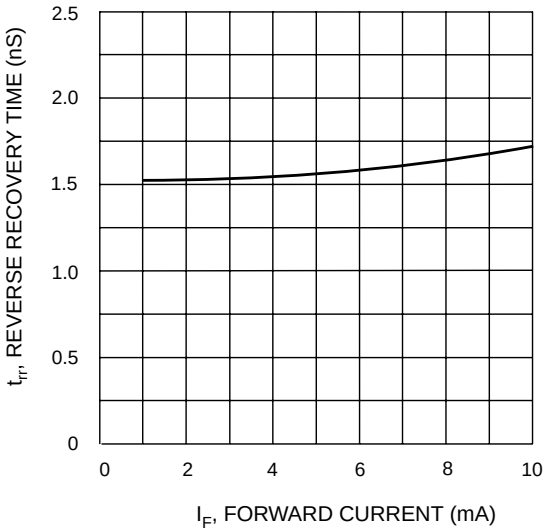


Fig. 4 Reverse Recovery Time vs. Forward Current

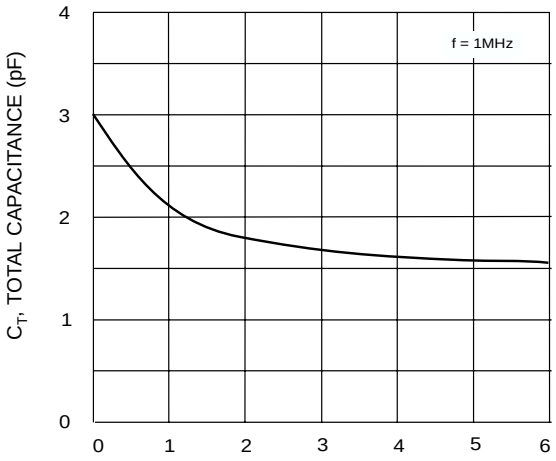
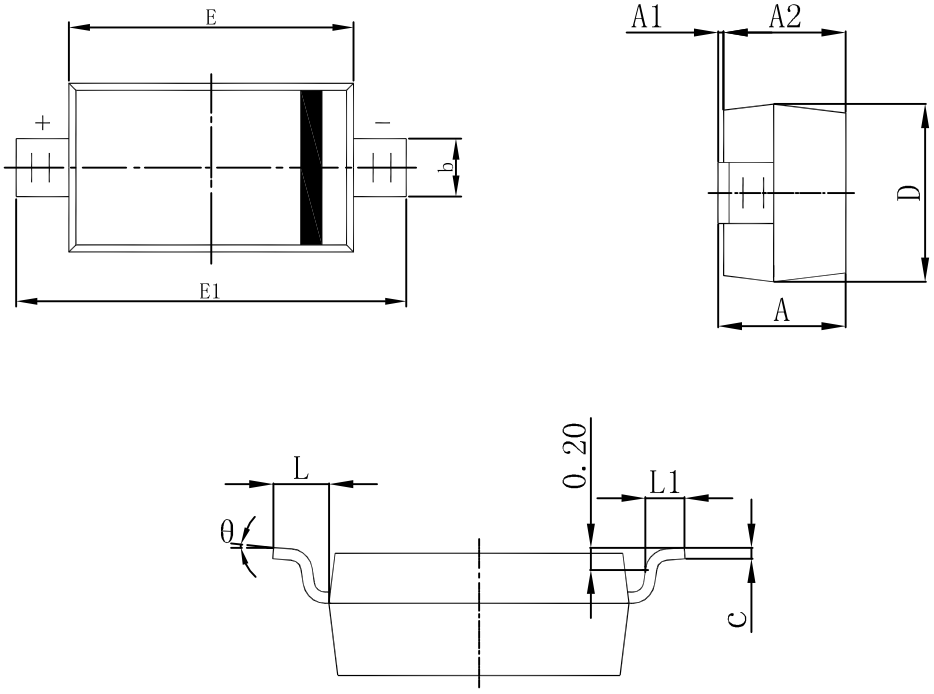


Fig. 5 Total Capacitance vs. Reverse Voltage

SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

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