



## Features

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automatic Insertion



**SOD-123**



## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT54GW,115	SOD-123	S8	3000

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

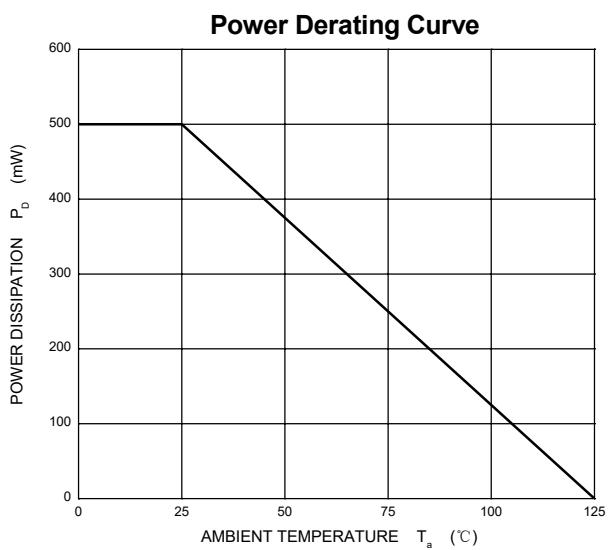
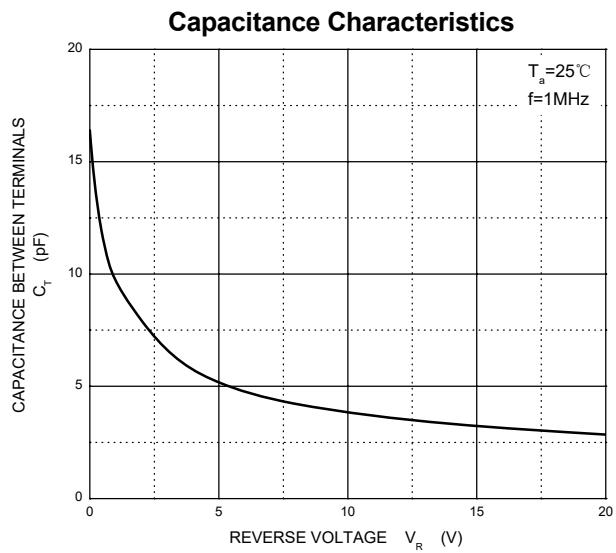
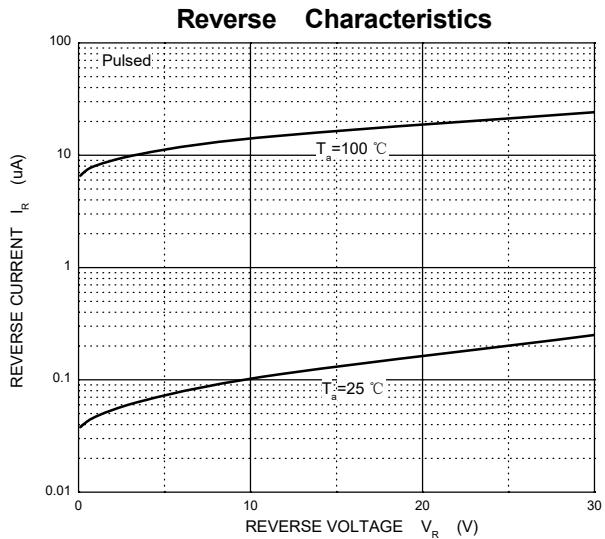
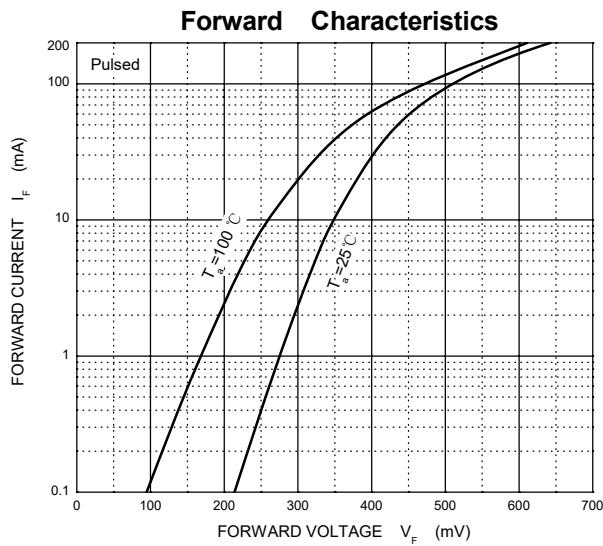
Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		
Working Peak Reverse Voltage	V <sub>RWM</sub>	30	V
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	V
Forward Continuous Current	I <sub>FM</sub>	200	mA
Repetitive Peak Forward Current @t<1.0s	I <sub>FRM</sub>	500	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	4.0	A
Power Dissipation	P <sub>D</sub>	500	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	200	°C/W
Junction temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-55~+150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V <sub>(BR)</sub>	30			V	I <sub>R</sub> =10 μA
Forward voltage	V <sub>F</sub>			1.0	V	I <sub>F</sub> =200mA
	V <sub>F</sub>	0.26		0.33	V	I <sub>F</sub> =2mA
	V <sub>F</sub>			0.45	V	I <sub>F</sub> =15mA
Reverse current	I <sub>R</sub>			0.5	μA	V <sub>R</sub> =25V
Capacitance between terminals	C <sub>T</sub>			10	pF	V <sub>R</sub> =1.0V,f=1.0MHz
Reverse recovery time	t <sub>rr</sub>			5	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1XI <sub>R</sub> ,R <sub>L</sub> =100Ω

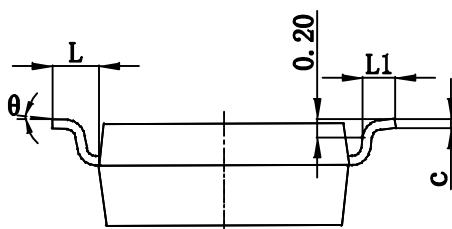
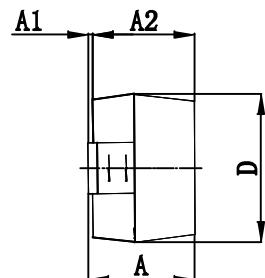
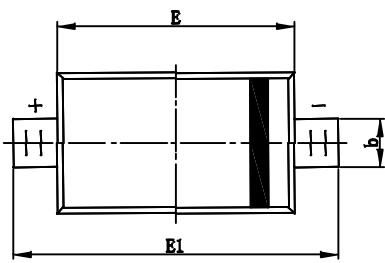


## Typical Characteristics



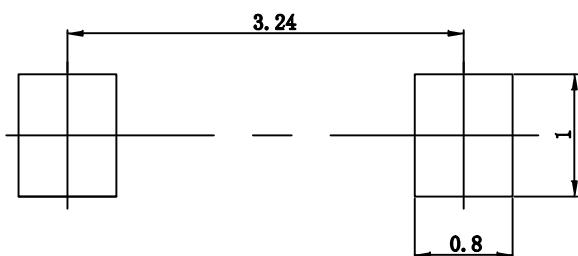


### SOD-123 Package Outline Dimensions



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°

### SOD-123 Suggested Pad Layout



#### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.



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