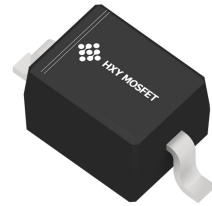




Features

Extremely Fast Switching Speed
Low Forward Voltage
Pb-Free Package is Available



SOD-323



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT54WS	SOD-323	L9	3000

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

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_{RM}	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	
Non-Repetitive Peak Forward Current (t < 1s)	I_{FSM}	600	
Power Dissipation -Derate above 25°C	P_d	200	mW
		1.57	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 10 \mu A$	30			V
Forward voltage	V_F	$I_F = 0.1 \text{ mA}$			0.24	
		$I_F = 1 \text{ mA}$			0.32	
		$I_F = 10 \text{ mA}$			0.4	
		$I_F = 30 \text{ mA}$			0.5	
		$I_F = 100 \text{ mA}$			0.8	
Reverse voltage leakage current	I_R	$V_R = 25 \text{ V}$			2	μA
Junction capacitance	C_j	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$			10	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10 \text{ mA}, I_{R(REC)} = 1 \text{ mA}$			5	ns



Typical Characteristics

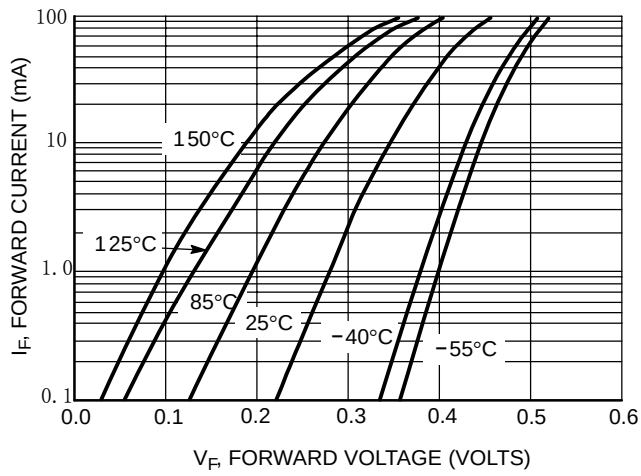


Figure 2. Forward Voltage

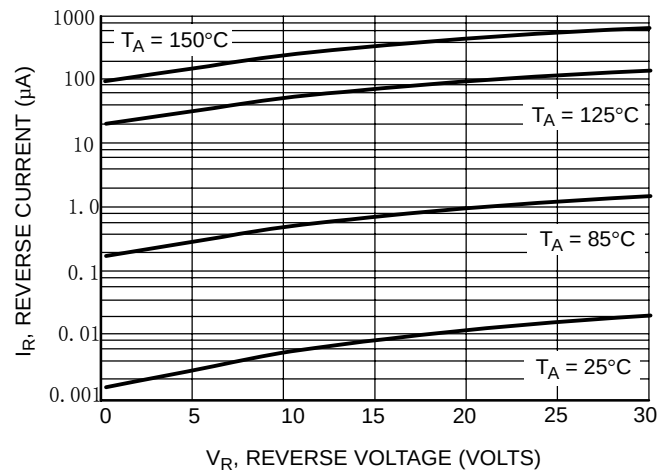


Figure 3. Leakage Current

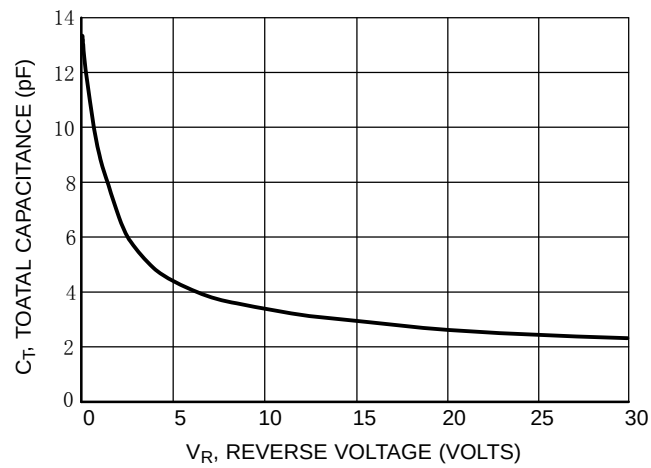
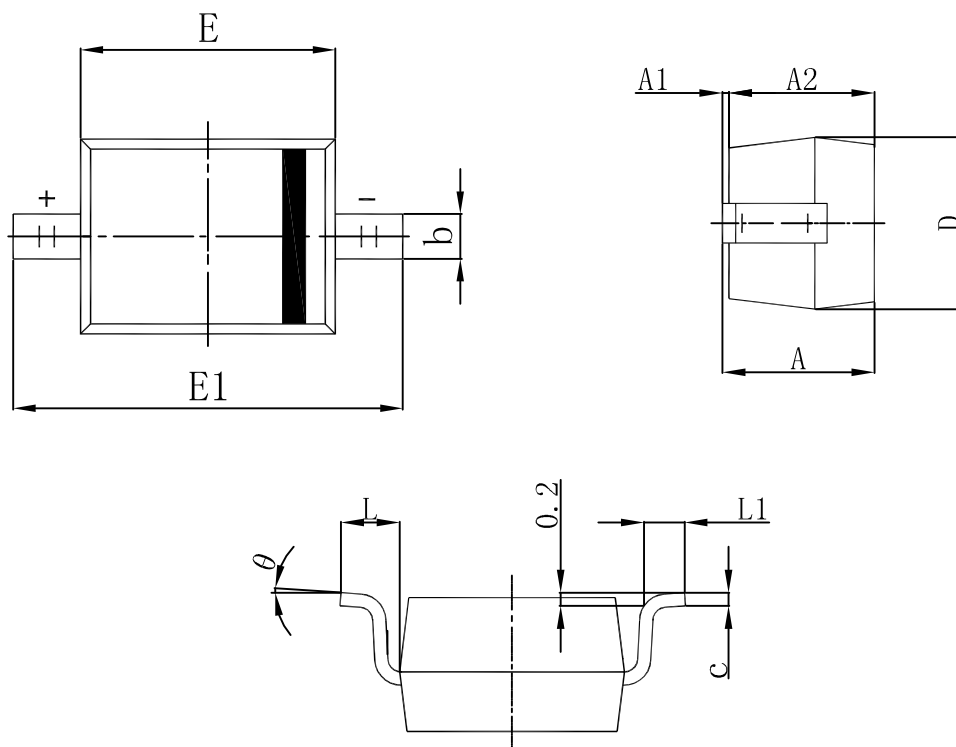


Figure 4. Total Capacitance



SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°



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