



### Features

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



**SOD-523**

### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT54XV2T1G	SOD-523	JV	3000



### Maxmim Ratings (Ta=25 unless otherwise noted)

Parameter	Symbol	Limits	Unit
DC Reverse voltage	$V_R$	30	V
Continuous forward current	$I_F$	200	mA
Peak forward surge current	$I_{FSM}$	600	mA
Total power dissipation	$P_{tot}$	200	mW
Total resistance junction to ambient	$R_{\theta JA}$	635	°C/W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55-150	°C

### Electrcal Characteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30			V	$I_R=100\mu A$
Forward voltage	$V_F$		0.22	0.24	V	$I_F=0.1mA$
			0.41	0.5		$I_F=30mA$
			0.52	0.8		$I_F=100mA$
			0.29	0.32		$I_F=1.0mA$
			0.35	0.40		$I_F=10mA$
Reverse current	$I_R$		0.5	2.0	$\mu A$	$V_R=25V$
Diode capacitance	$C_d$		7.6	10	pF	$V_R=1V, f=1MHz$
Reverse recovery time	$t_{rr}$			5	ns	$I_F=I_R=10mA$



### Typical Characteristics

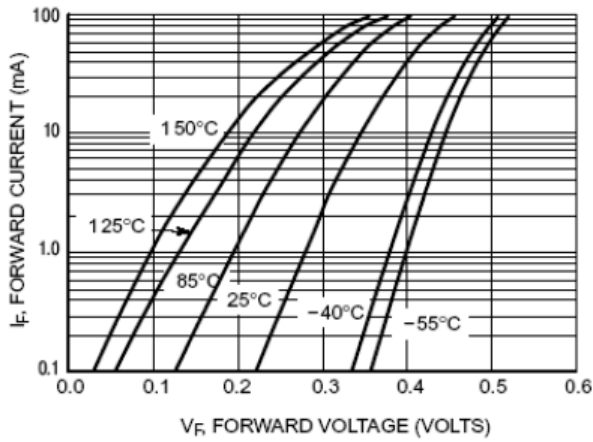


Figure 2. Forward Voltage

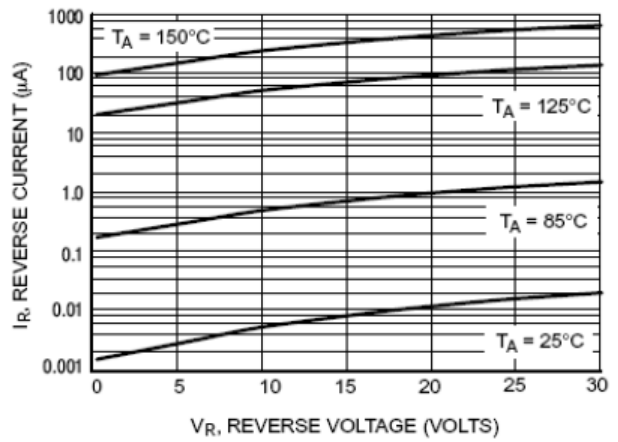


Figure 3. Leakage Current

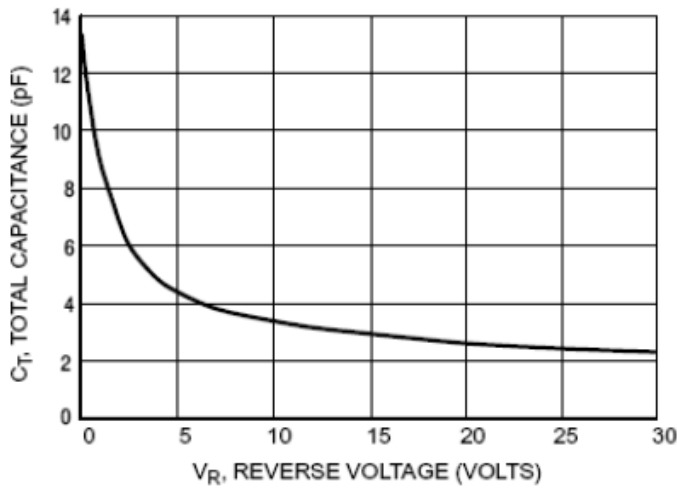
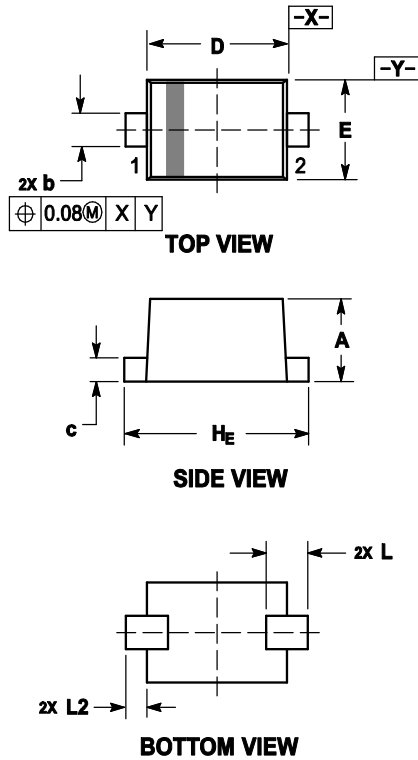


Figure 4. Total Capacitance



## OUTLINE AND DIMENSIONS



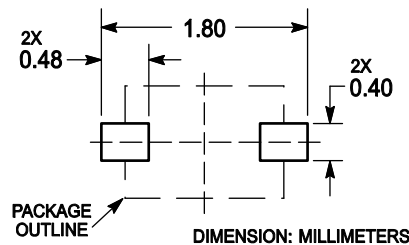
### Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD THICKNESS OF BASE MATERIAL.

4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.60	0.70	0.020	0.024	0.028
b	0.25	0.30	0.35	0.010	0.012	0.014
c	0.07	0.14	0.20	0.003	0.006	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
$H_E$	1.50	1.60	1.70	0.059	0.063	0.067
L	0.30 REF			0.012 REF		
$L_2$	0.15	0.20	0.25	0.006	0.008	0.010

## SOLDERING FOOTPRINT





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