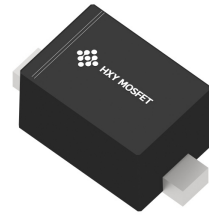




Features

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)
SBAT54XV2T5G	SOD-523	JV	3000

Maximum Ratings (Ta=25°C 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

Electrical Characteristics(Ta=25°C 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 0.41 0.52 0.29 0.35	0.24 0.5 0.8 0.32 0.40	V	$I_F=0.1mA$ $I_F=30mA$ $I_F=100mA$ $I_F=1.0mA$ $I_F=10mA$
Reverse current	I_R		0.5	2.0	μA	$V_R=25V$
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

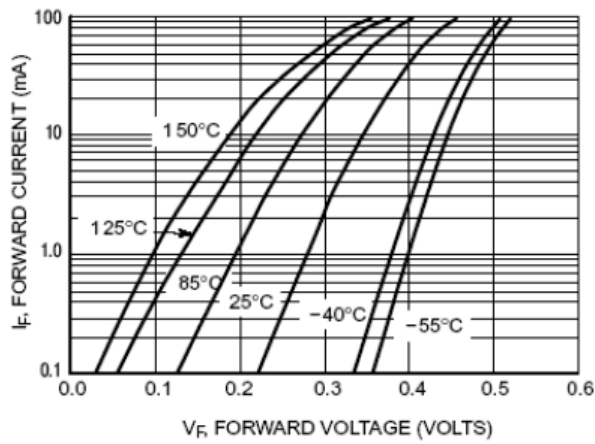


Figure 1. Forward Voltage

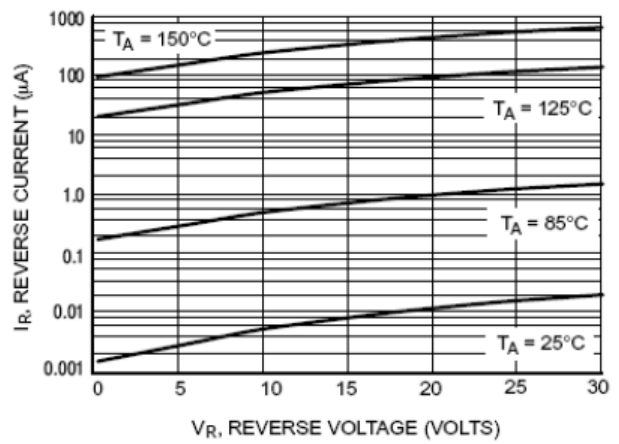


Figure 2. Leakage Current

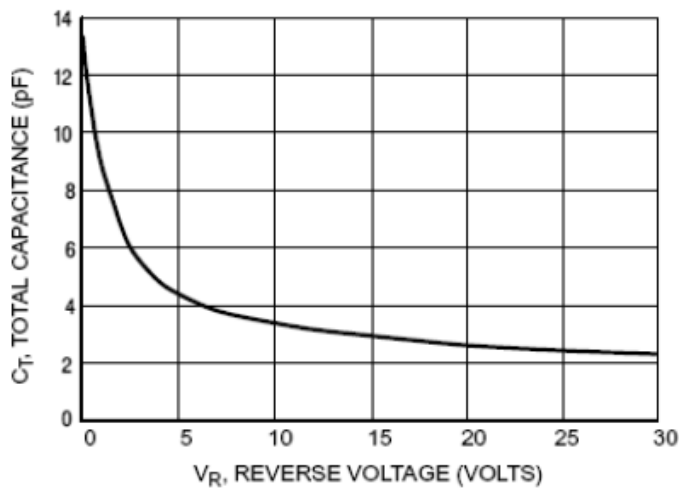
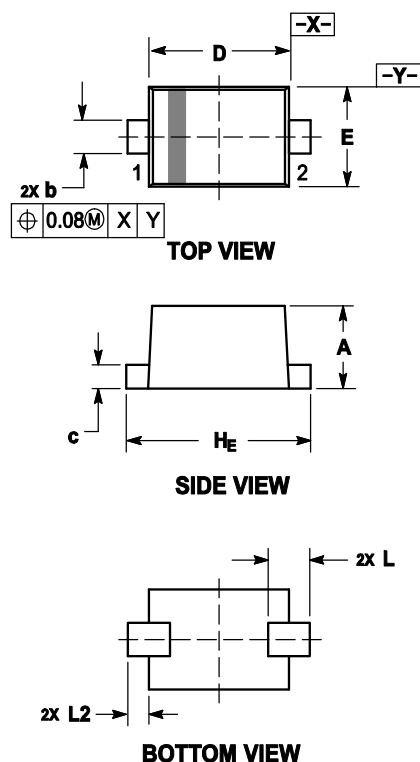


Figure 3. Total Capacitance



Outline And Dimensions



Notes:

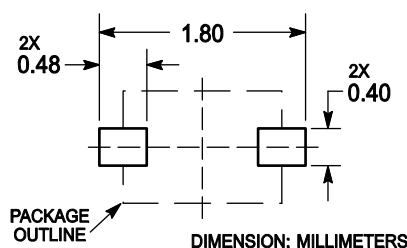
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD THICKNESS OF BASE MATERIAL.

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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