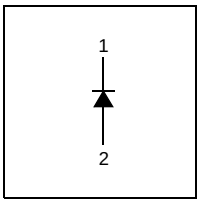
FAIRCHILD SEMICONDUCTOR®

March 2010

BAT54HT1G
Small Signal Diode

SOD-323

Connection Diagram



Absolute Maximum Ratings * T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	30	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second	600	mA
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	-55 to +150	°C

* These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES:

1) These ratings are based on a maximum junction temperature of 150 degrees C.

2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

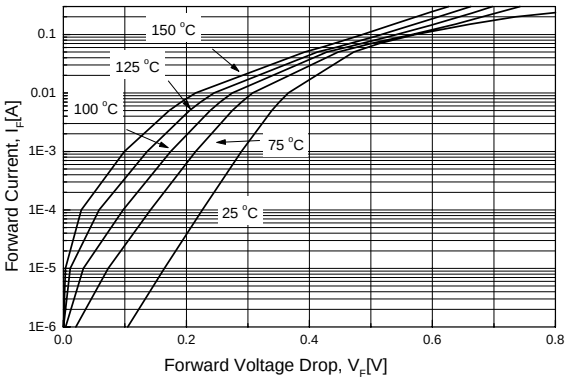
Thermal Characteristics

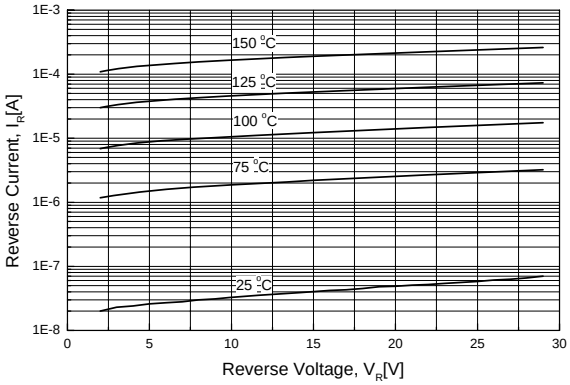
Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	600	°C/W

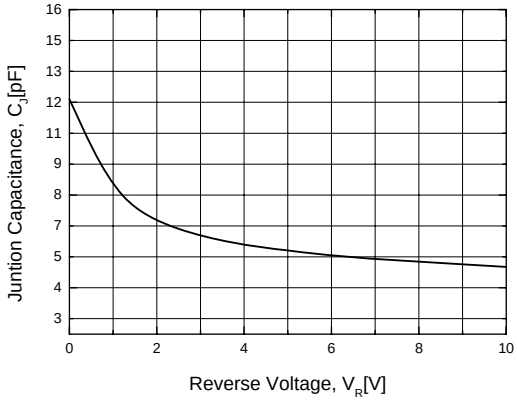
Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	I_R = 10μA	30		V
V_F	Forward Voltage	I_F = 0.1mA I_F = 1.0mA I_F = 10mA I_F = 30mA I_F = 100mA		240 320 400 500 0.8	mV mV mV mV V
I_R	Reverse Leakage	V_R = 25V		2.0	μA
C_T	Total Capacitance	V_R = 1V, f = 1.0MHz		10	pF
t_{rr}	Reverse Recovery Time	I_F = I_R = 10mA, I_{RR} = 1.0mA, R_L = 100Ω		5.0	ns

Typical Performance Characteristics

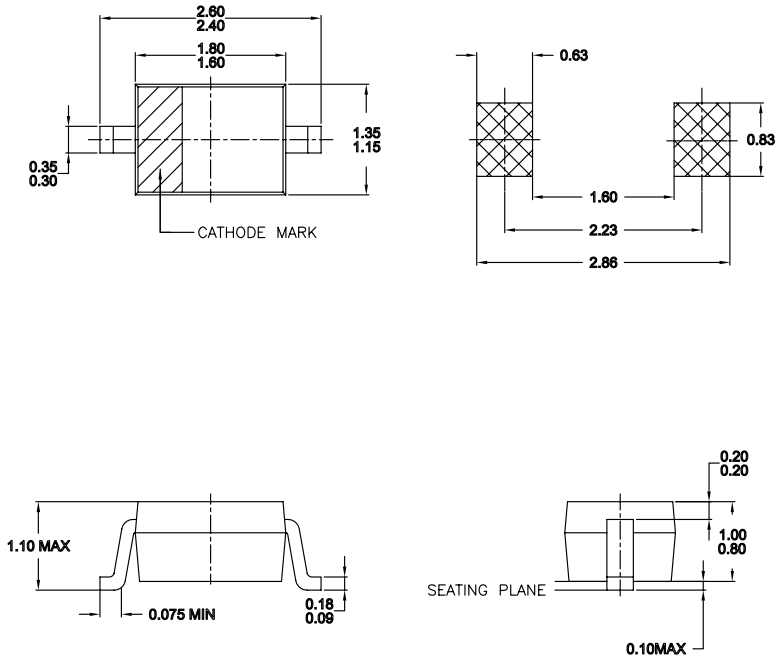






Physical Dimension

SOD-323



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D) DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994

Dimensions in Millimeters

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Rev. I47