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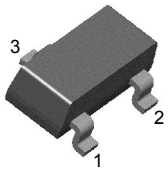
FAIRCHILD SEMICONDUCTOR®

April 2008

BAS20
General Purpose High Voltage Diode



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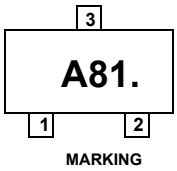
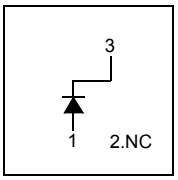


MARKING

Connection Diagram



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

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	 1.0 2.0	 A A
T_{STG}	Storage Temperature Range	-55 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

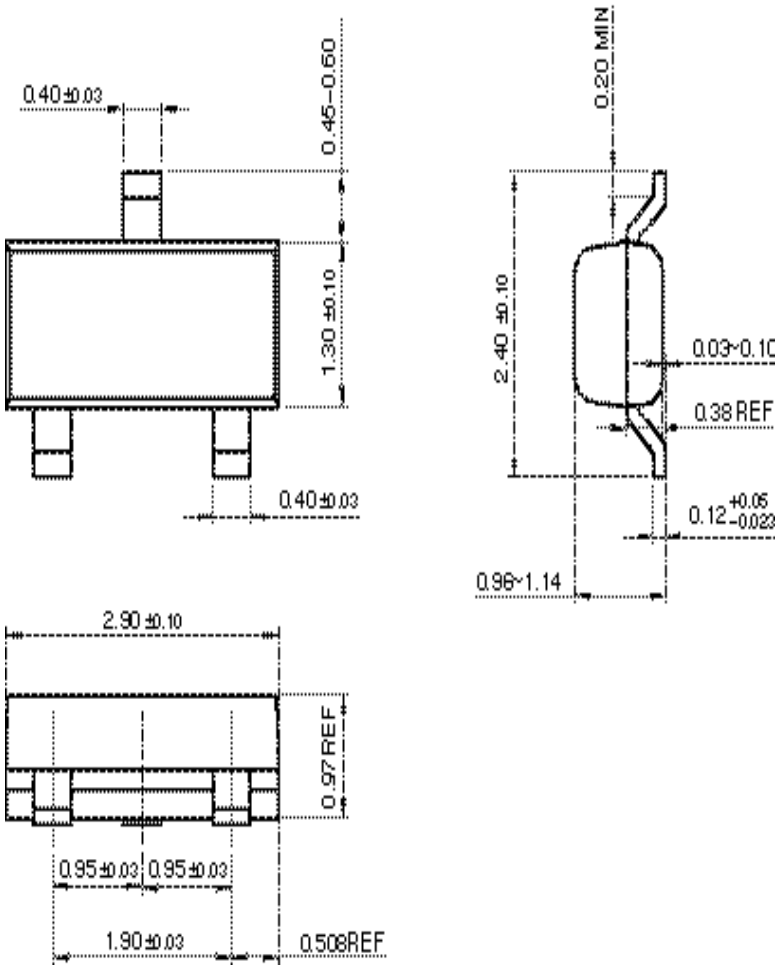
Symbol	Parameter	Value	Units
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	I_R = 100μA	200		V
V_F	Forward Voltage	I_F = 100mA I_F = 200mA		1.0 1.25	V V
I_R	Reverse Leakage	V_R =50V V_R =50V, T_A = 150°C		100 100	nA μA
C_T	Total Capacitance	V_R = 0V, f = 1.0MHz		5	pF
t_{rr}	Reverse Recovery Time	I_F = I_R =30mA, I_{RR} = 3.0mA, R_L = 100Ω		50	ns

Mechanical Dimensions

SOT-23



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