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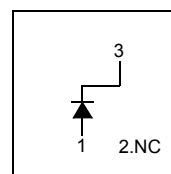
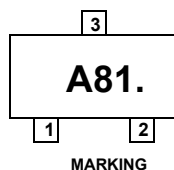
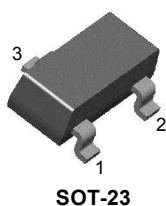
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# BAS20

## General Purpose High Voltage Diode



Connection Diagram



### Absolute Maximum Ratings \* $T_A = 25^\circ\text{C}$ 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	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

\* 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

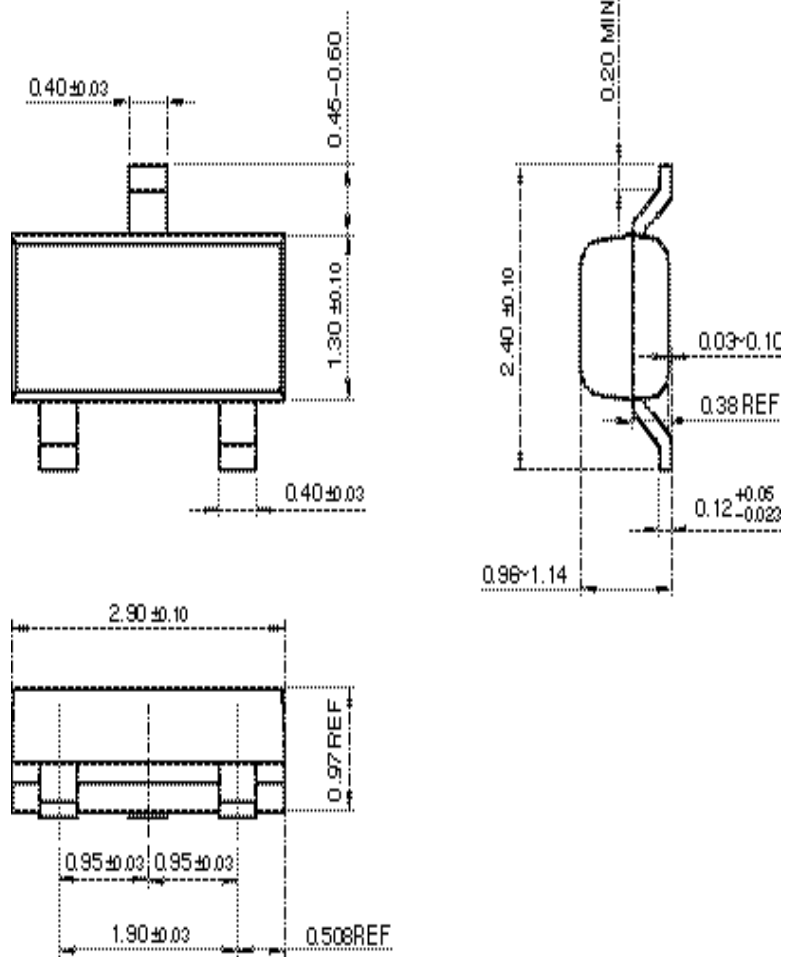
Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C/W}$

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

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

Mechanical Dimensions

SOT-23





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