



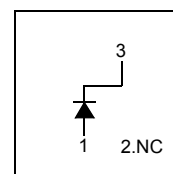
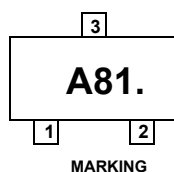
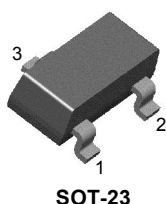
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BAS20

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

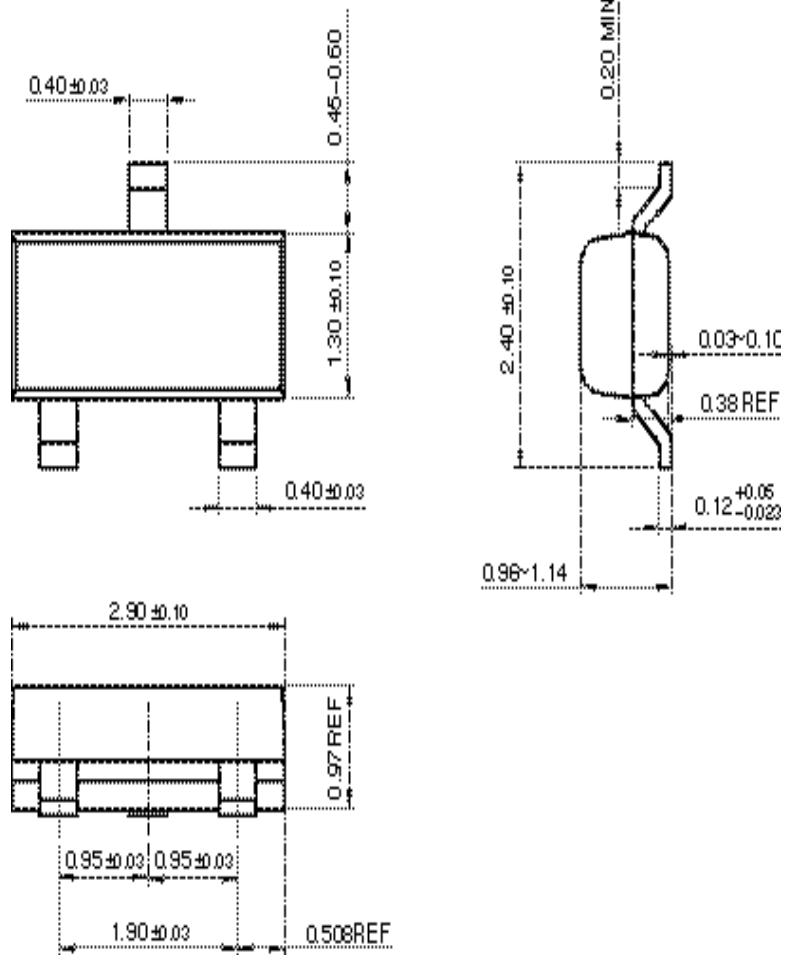
Symbol	Parameter	Value	Units
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C/W}$

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 μA
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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