

**Features**

- For Surface Mount Application
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

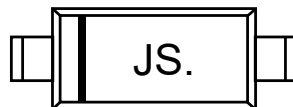
MCC Part Number	Repetitive Peak Reverse Voltage $V_{RRM}$	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage $V_R$
BAS21WS	250V	177V	250V

Parameter	Symbol	Value
Continuous Reverse Voltage	$V_R$	250V
Maximum Peak Forward Current	$I_{FM}$	200mA
Peak Forward Surge Current	$I_{FSM}$	625mA
Power Dissipation (NOTE 2)	$P_D$	200mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

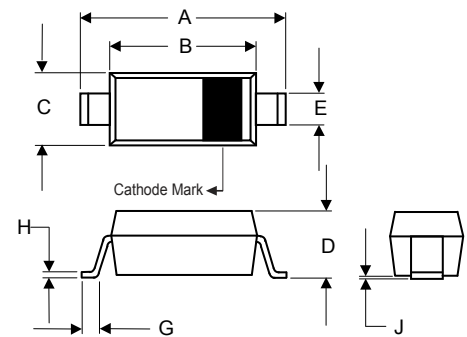
Note: 2. Mounted on FR-5 Board Minimum Pad, Derate above 25°C.

**Internal Structure and Marking Code**



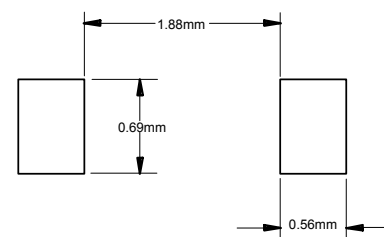
**200mW  
High Voltage  
Switching Diode**

**SOD-323**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

**Suggested Solder Pad Layout**



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	$I_R=100\mu A$	250			V
Forward Voltage	$V_F$	$I_F=100mA$			1	V
		$I_F=200mA$			1.25	V
Reverse Current	$I_R$	$V_R=200V$			0.1	$\mu A$
		$V_R=200V, T_J=150^\circ C$			100	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			5	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=30mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			50	ns

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

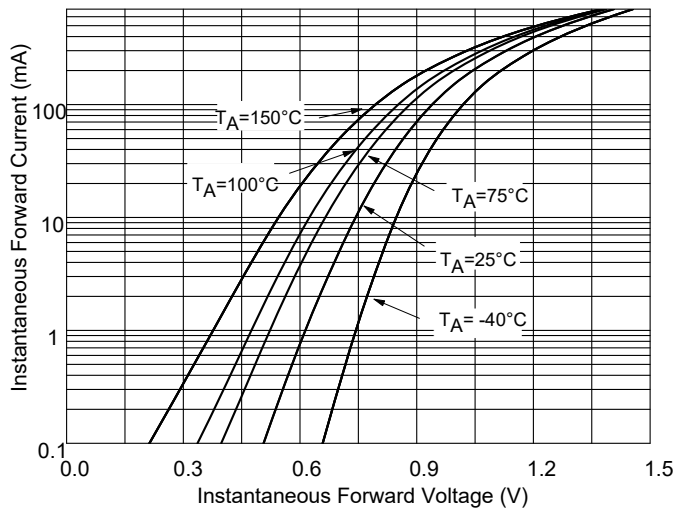


Fig. 2 - Typical Reverse Leakage Characteristics

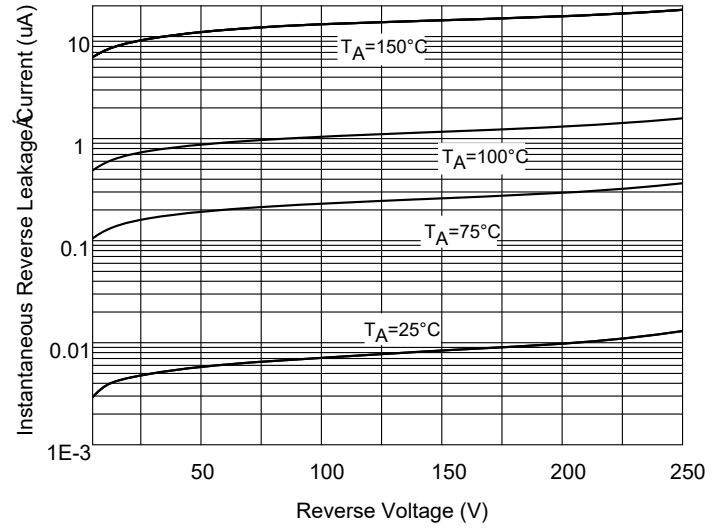


Fig. 3 - Capacitance Characteristics

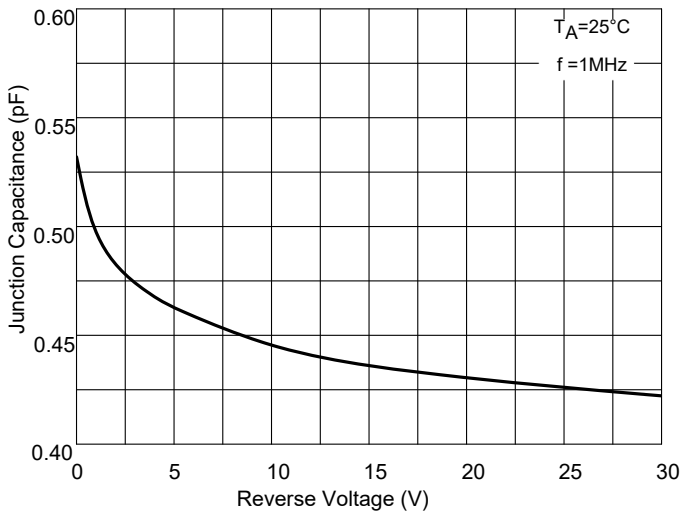
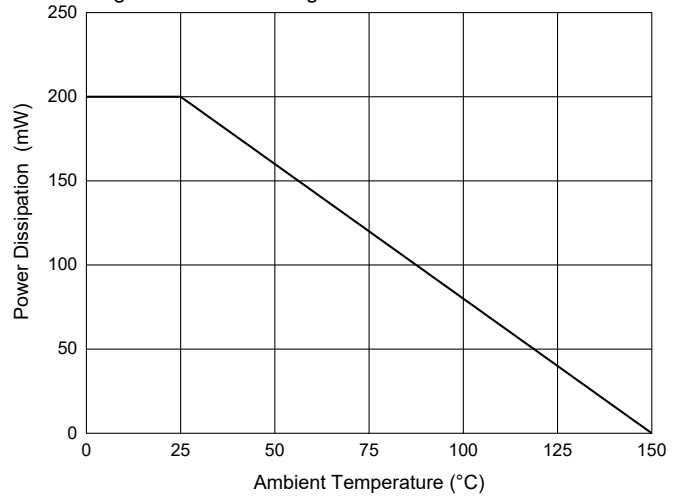


Fig. 4 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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