

### **Features**

- For Surface Mount Application •
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating •
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS ٠ Compliant. See Ordering Information)

#### **Maximum Ratings**

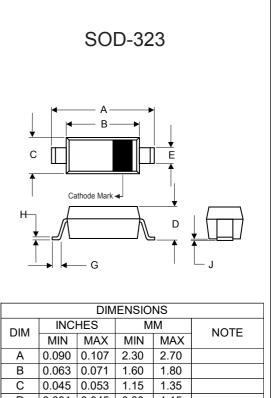
- Operating Junction Temperature Range: -55°C to +150°C •
- Storage Temperature Range: -55°C to +150°C ٠
- Thermal Resistance: 625°C/W Junction to Ambient •

MCC Part Number	Device Marking		
BAS21WS	JS		

Parameter	Symbol	Value
Continuous Reverse Voltage	V <sub>R</sub>	250V
Maximum Peak Forward Current	I <sub>FM</sub>	200mA
Peak Forward Surge Current	I <sub>FSM</sub>	625mA
Power Dissipation (NOTE 1)	P <sub>D</sub>	200mW

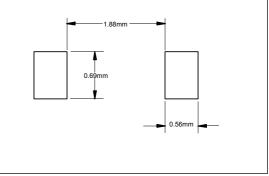
Notes: 1. Mounted on FR-5 Board Minimum Pad, Derate above 25°C.

# 200mW **High Voltage Switching Diode**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
А	0.090	0.107	2.30	2.70	
В	0.063	0.071	1.60	1.80	
С	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
Е	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
Н	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.	Тур.	Max.	Units									
Reverse Breakdown Voltage	V <sub>BR</sub>	Ι <sub>R</sub> =100μΑ	250			V									
	V <sub>F</sub>	I <sub>F</sub> =100mA			1	V									
Forward Voltage		I <sub>F</sub> =200mA			1.25	V									
Deveree Current	ent I <sub>R</sub>	V <sub>R</sub> =200V			0.1	μA									
Reverse Current		I R	I R	I R	I R	'R	'R	'R	I R	'R	R R	V <sub>R</sub> =200V, T <sub>J</sub> =150°C			100
Junction Capacitance	CJ	$V_R = 0V, f = 1MHz$			5	pF									
Reverse Recovery Time	t <sub>rr</sub>	$I_F=I_R=30$ mA, $I_{rr}=0.1 \times I_R, R_L=100\Omega$			50	ns									



## **Curve Characteristics**

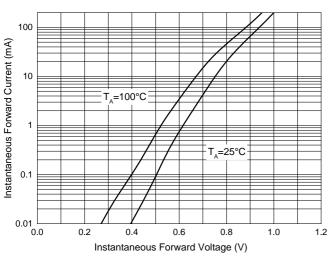


Fig. 1 - Typical Instantaneous Forward Characteristics

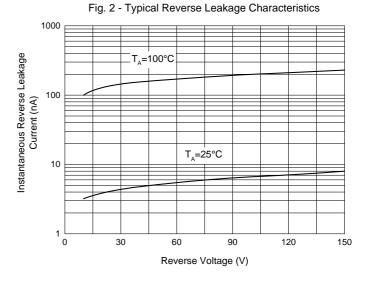
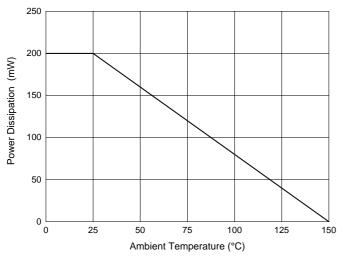


Fig. 3 - Power Derating Curve





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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

#### \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp*. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp*. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp*. and all the companies whose products are represented on our website, harmless against all damages.

#### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

#### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources**. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.