

### Features

- High Conductance
- Fast Switching Speed
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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

# 225mW 250Volt Switching Diode

MCC Part Number		Device Marking		
BAS21A		JS2		
BAS21C		JS3		
BAS21S		JS4		
Forward DC Current	I <sub>FM</sub>	200mA	T <sub>A</sub> =25°C	
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	2.5A 0.5A	@ t = 1.0µs @ t = 1s	
Power Dissipation	P <sub>D</sub>	225mW	T <sub>A</sub> =25°C	

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Breakdown Voltage	$V_{BR}$	250V	Ι <sub>R</sub> =100μΑ	
Maximum Forward Voltage	V <sub>F</sub>	1.10V	I <sub>FM</sub> =100.0mA T <sub>J</sub> =25°C	
Maximum leakage current	I <sub>R</sub>	1.0µA	V <sub>R</sub> =200V T <sub>J</sub> =25°C	
Diode Capacitance	C <sub>D</sub>	5.0pF	V <sub>R</sub> =0.0V,f=1.0MHz	
Reverse Recovery Time	t <sub>rr</sub>	50.0ns		

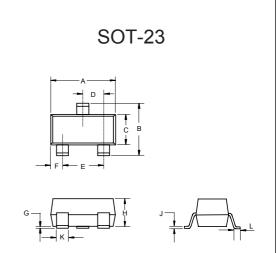
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

### Internal Structure



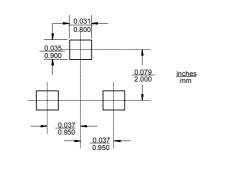


BAS21S



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
Е	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

#### Suggested Solder Pad Layout





# **Curve Characteristics**

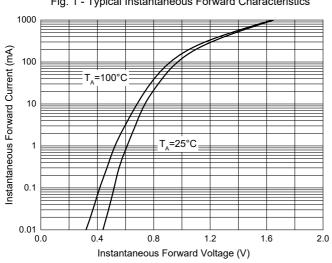
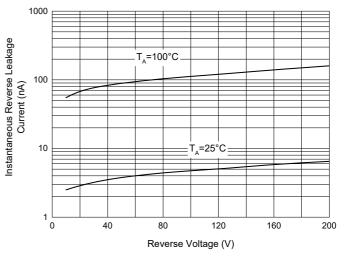
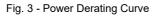
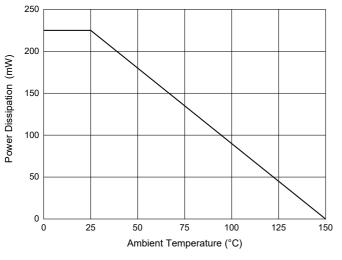


Fig. 1 - Typical Instantaneous Forward Characteristics

Fig. 2 - Typical Reverse Leakage Characteristics









## **Ordering Information**

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

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