

## 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

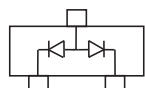
MCC Part Number		Device Marking	
BAS21A		JS2	
BAS21C		JS3	
BAS21S		JS4	
Forward DC Current	$I_{FM}$	200mA	$T_A=25^\circ\text{C}$
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	2.5A 0.5A	@ $t = 1.0\mu\text{s}$ @ $t = 1\text{s}$
Power Dissipation	$P_D$	225mW	$T_A=25^\circ\text{C}$

## Electrical Characteristics @ 25°C Unless Otherwise Specified

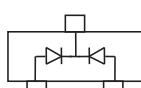
Reverse Breakdown Voltage	$V_{BR}$	250V	$I_R=100\mu\text{A}$
Maximum Forward Voltage	$V_F$	1.10V	$I_{FM}=100.0\text{mA}$ $T_J=25^\circ\text{C}$
Maximum leakage current	$I_R$	1.0 $\mu\text{A}$	$V_R=200\text{V}$ $T_J=25^\circ\text{C}$
Diode Capacitance	$C_D$	5.0pF	$V_R=0.0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	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.

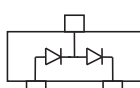
## Internal Structure



BAS21A



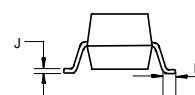
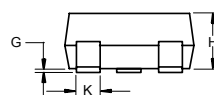
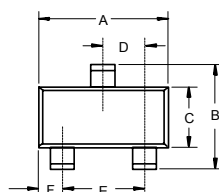
BAS21C



BAS21S

# 225mW 250Volt Switching Diode

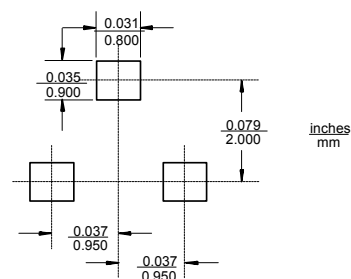
## SOT-23



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	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	
H	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

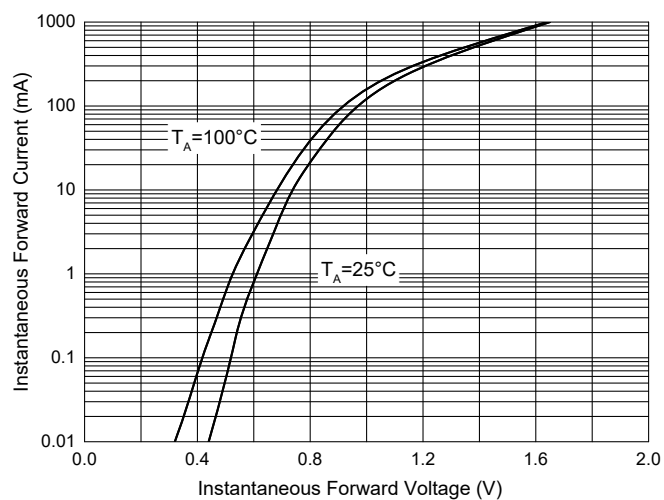


Fig. 2 - Typical Reverse Leakage Characteristics

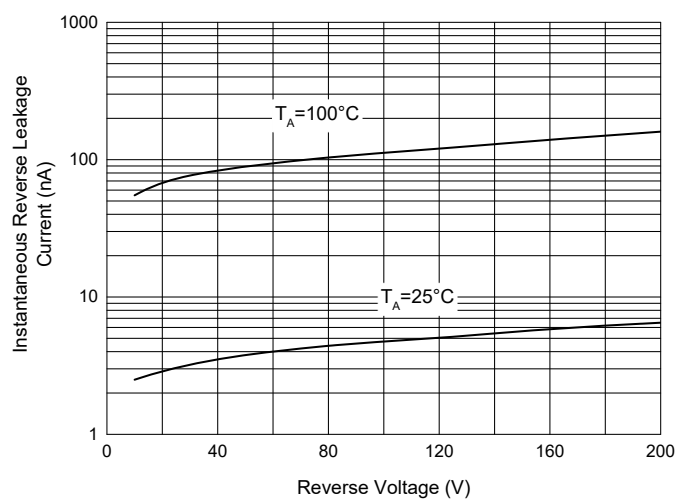
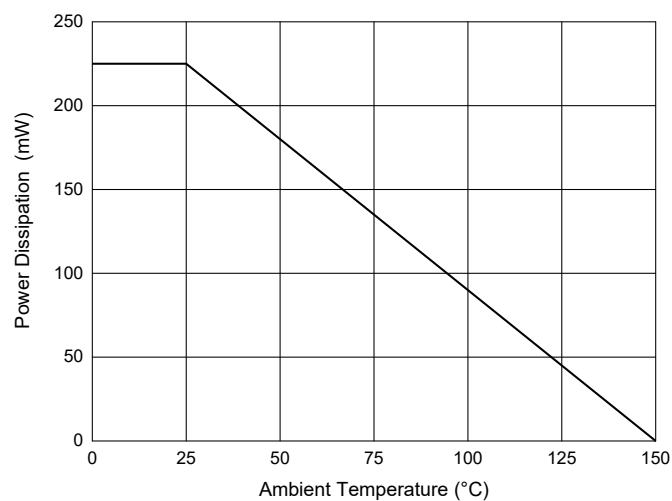


Fig. 3 - Power Derating Curve



## Ordering Information

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

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