

## Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Low Current Leakage
- Small Outline Surface Mount Package
- 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
- Thermal Resistance: 357°C/W Junction to Ambient (Note 2)

MCC Part Number	Repetitive Peak Reverse Voltage $V_{RRM}$	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage $V_R$
BAS16HE3	100V	71V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value
Peak Forward Current	$I_F$	215mA
Peak Forward Surge Current (t=1s) (t=0.1ms)	$I_{FSM}$	1A 4A
Power Dissipation	$P_D$	350mW

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

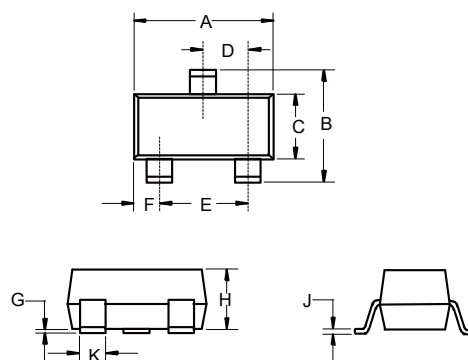
2. Valid Provided that Terminals are Kept at Ambient Temperature.

## Internal Structure and Marking Code



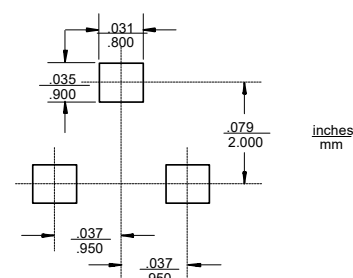
# 350mW 100Volt Switching Diode

## SOT-23



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	0.035	0.041	0.89	1.03	
E	0.070	0.081	1.78	2.05	
F	0.018	0.024	0.45	0.60	
G	0.0005	0.0039	0.01	0.10	
H	0.035	0.044	0.89	1.12	
J	0.003	0.007	0.085	0.180	
K	0.015	0.020	0.37	0.51	

## Suggested Solder Pad Layout



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	$I_R=100\mu A$	100			V
Maximum Instantaneous Forward Voltage	$V_F$	$I_F=1mA$			0.715	V
		$I_F=10mA$			0.855	V
		$I_F=50mA$			1	V
		$I_F=100mA$			1.25	V
Maximum DC Reverse Current	$I_R$	$V_R=75V, T_J=25^\circ C$			1	$\mu A$
		$V_R=75V, T_J=150^\circ C$			50	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			2	pF
Reverse Recovery Time	$t_{rr}$	$I_F=10mA, V_R= 6.0V, R_L=100\Omega$			4	ns

\* Pulse Test: Pulse Width 300  $\mu sec$ , Duty Cycle 2%

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

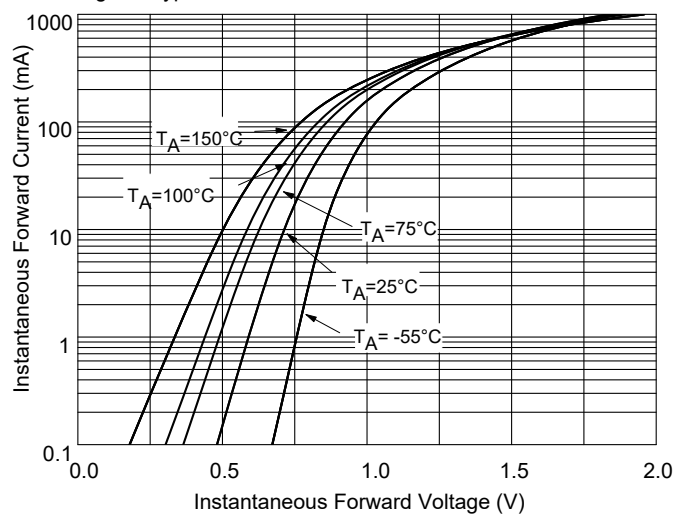


Fig. 2 - Typical Reverse Leakage Characteristics

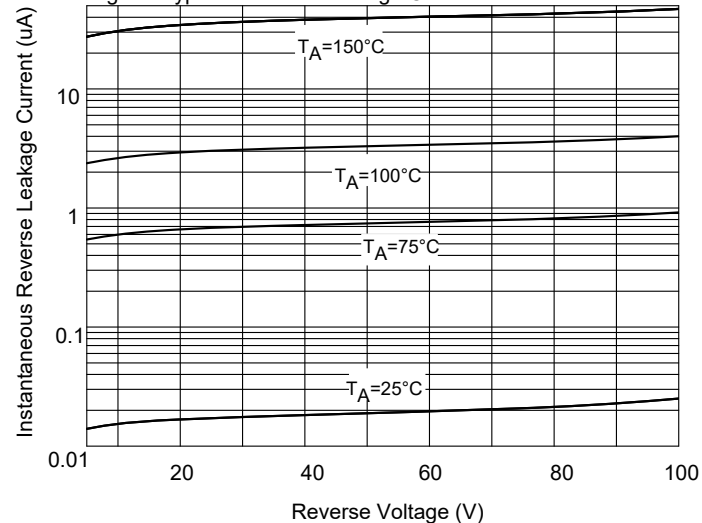


Fig. 3 - Capacitance Characteristics

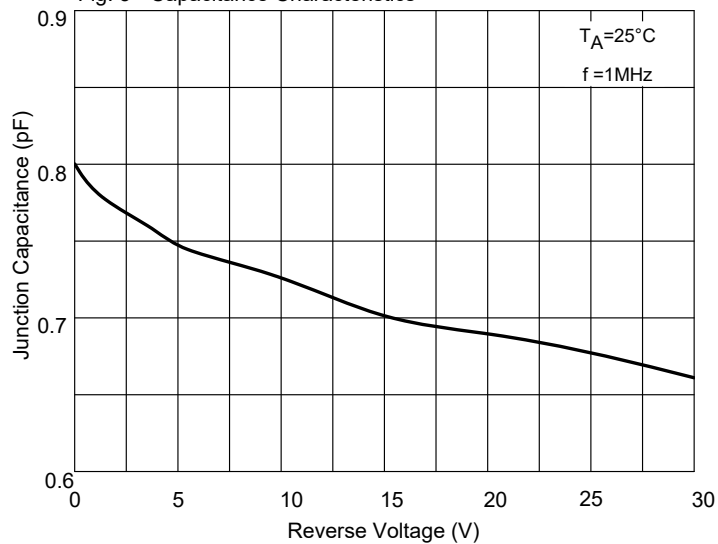
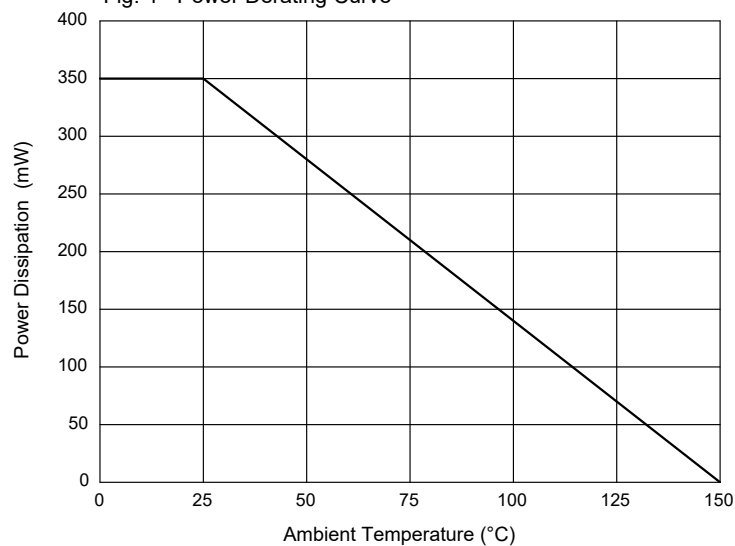


Fig. 4 - Power Derating Curve



## Ordering Information

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

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