Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Surface Mount Package Ideally Suited for Automatic Insertion
- 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: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 312.5°C/W Junction to Ambient（Note 2）

400mW High Speed Switching Diode

MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
BAS316HE3	100V	71V	100V

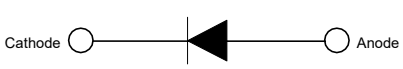
Electrical Characteristics @ 25°C Unless Otherwise Specifie

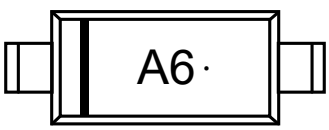
Parameter	Symbol	Value
Peak Forward Current	I_F	250mA
Peak Forward Surge Current (t=1μs) (t=1ms) (t=1s)	I_{FSM}	4A 1A 0.5A
Power Dissipation	P_D	400mW

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

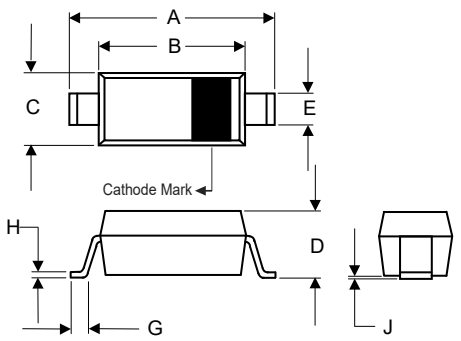
2. Valid Provided that Terminals are Kept at Ambient Temperature.

Internal Structure and Marking Code



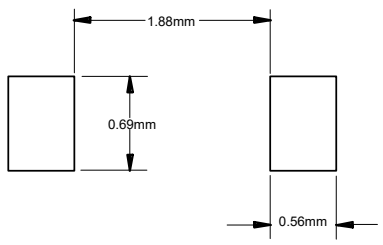


SOD-323



DIMENSIONS					
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=100μA	100			V
Forward Voltage	V_F	I_F=1mA			0.715	V
		I_F=10mA			0.855	V
		I_F=50mA			1	V
		I_F=150mA			1.25	V
Reverse Current	I_R	V_R=20V			0.03	μA
		V_R=75V			1	μA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			1.5	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1×I_R,R_L=100Ω			4	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

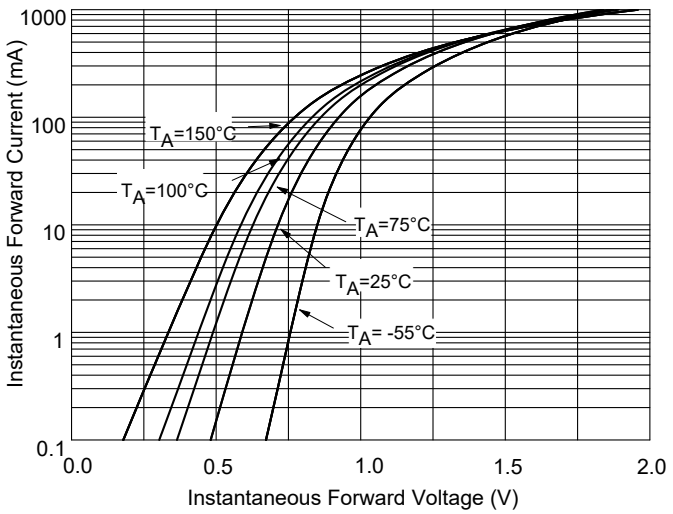


Fig. 2 - Typical Reverse Leakage Characteristics

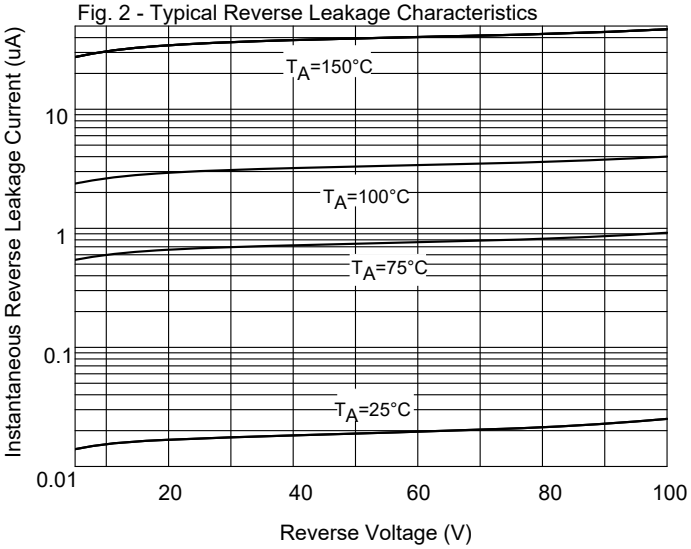


Fig. 3 - Capacitance Characteristics

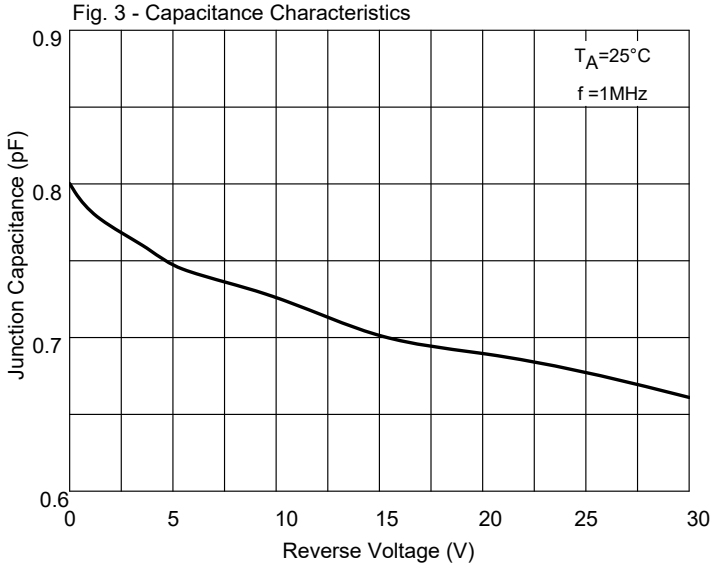
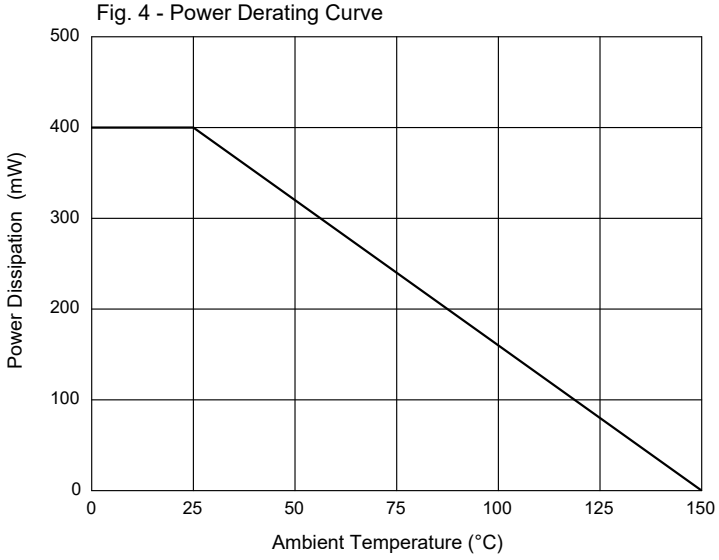


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
BAS316HE3-TP	Tape&Reel: 3Kpcs/Reel