

**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

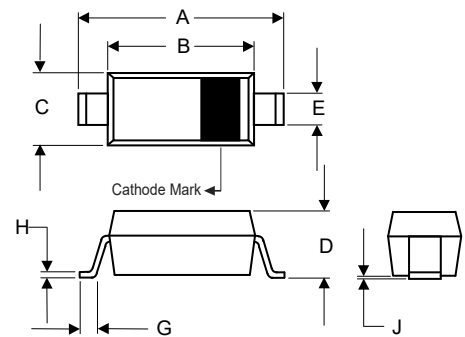
MCC Part Number	Device Marking
BAS316HE3	A6•

Parameter	Symbol	Value
Maximum Peak Reverse Voltage	$V_{RM}$	100V
Maximum DC Blocking Voltage	$V_R$	100V
Peak Forward Current	$I_F$	250mA
Peak Forward Surge Current	$I_{FSM}$ (t=1μs)	4A
	(t=1ms)	1A
	(t=1s)	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.

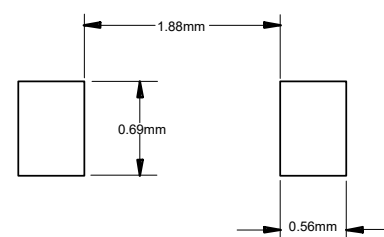
**400mW  
High Speed  
Switching Diode**

**SOD-323**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.090	0.113	2.30	2.88	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.049	0.80	1.24	
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	$V_{BR}$	$I_R=100\mu A$	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	$\mu A$
		$V_R=75V$			1	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			1.5	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			4	ns

**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

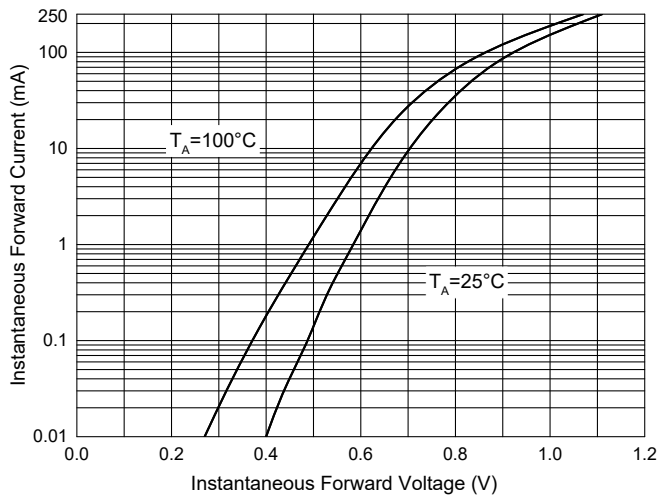


Fig. 2 - Typical Reverse Leakage Characteristics

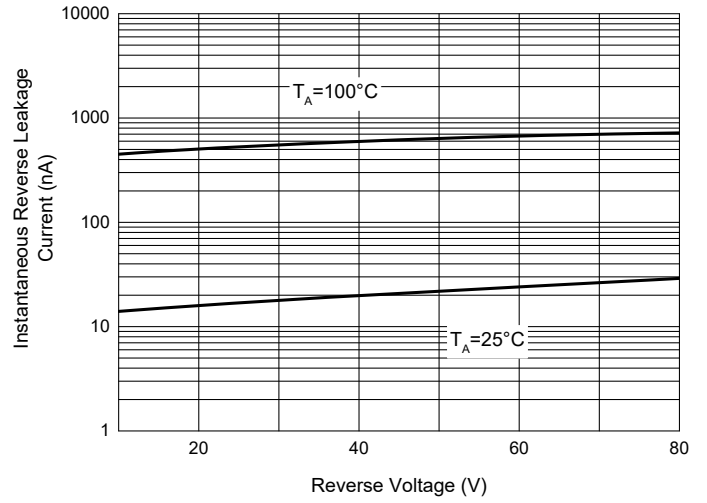
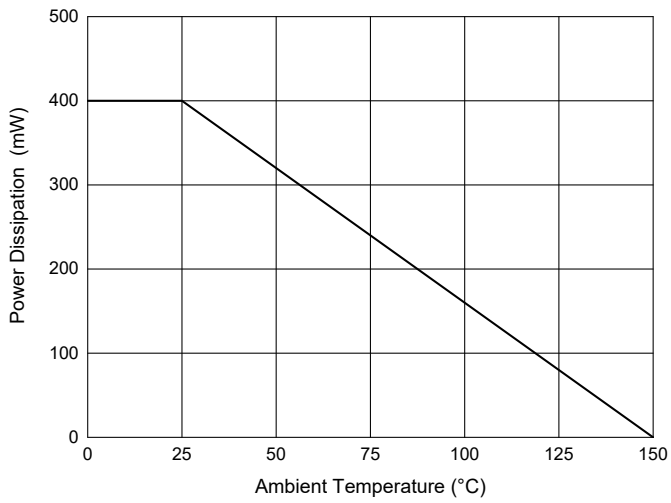


Fig. 3 - Power Derating Curve



## Ordering Information

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

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