

Features

- Low Reverse Current
- Fast Switching Speed
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- 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: 556°C/W Junction to Ambient

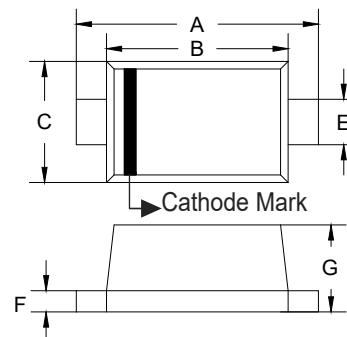
MCC Part Number	Device Marking
BAS716	S1

Parameter	Symbol	Value
DC Reverse Voltage	V_R	75V
Average Forward Current	$I_{F(AV)}$	200mA
Peak Forward Surge Current	I_{FSM}	1A
Power Dissipation	P_D	225mW

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

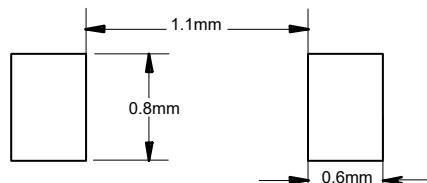
225mW 75Volt Switching Diode

SOD-523



DIM	DIMENSIONS				NOTE	
	INCHES		MM			
	MIN	MAX	MIN	MAX		
A	0.059	0.067	1.50	1.70		
B	0.043	0.051	1.10	1.30		
C	0.030	0.033	0.75	0.85		
E	0.010	0.014	0.25	0.35		
F	0.003	0.008	0.08	0.20		
G	0.020	0.026	0.50	0.65		

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu A$	75			V
Forward Voltage	V_F	$I_F=1mA$			0.9	V
		$I_F=10mA$			1	V
		$I_F=50mA$			1.1	V
		$I_F=150mA$			1.25	V
Reverse Current	I_R	$V_R=75V$			5	nA
		$V_R=100V$			80	nA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		2		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1\times I_R, R_L=100\Omega$			3	μs

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

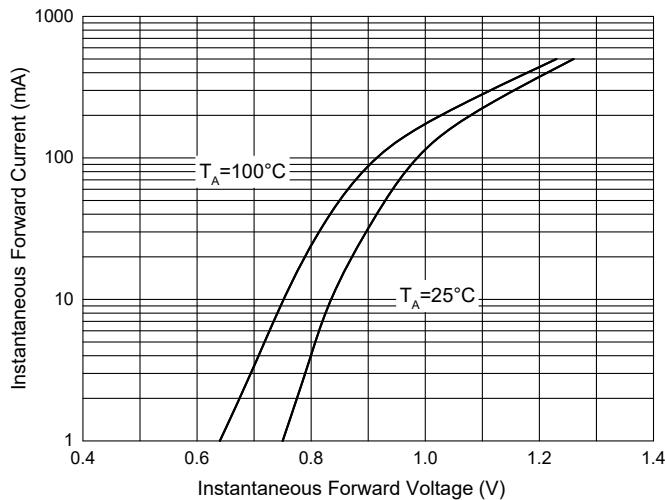


Fig. 2 - Typical Reverse Leakage Characteristics

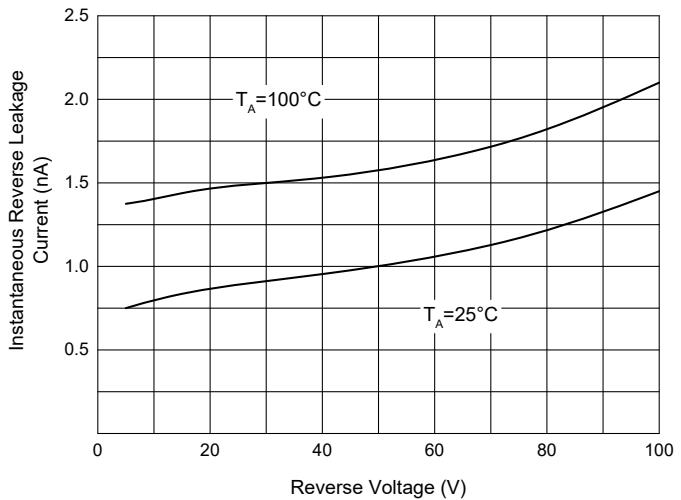
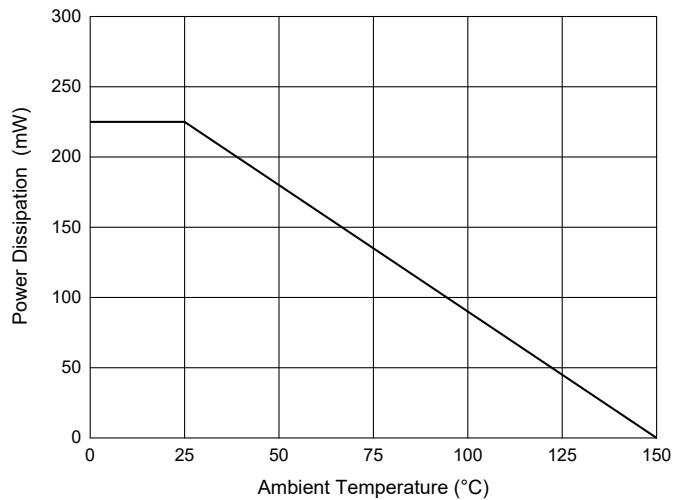


Fig. 3 - Power Derating Curve



Ordering Information

Device	Packing
BAS716-TP	Tape&Reel: 8Kpcs/Reel
BAS716-T3P	Tape&Reel: 3Kpcs/Reel

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