

**SURFACE MOUNT
FAST SWITCHING DIODE**

**REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere**

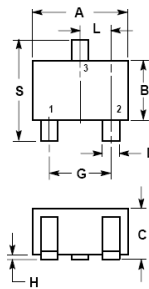
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-323 Plastic
- Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

SOT-323



SOT-323		
Dim.	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.80	1.00
D	0.30	0.40
G	1.20	1.40
H	0.00	0.10
J	0.10	0.25
K	0.425 Ref.	
L	0.650 Bsc	
N	0.700 Ref.	
S	2.00	2.40
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS16W	Units
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Repetitive Peak Reverse Voltage	V _{R(RM)}	75	V
Working Peak Reverse Voltage	V _{R(WM)}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current	I _{FM}	300	mA
Average Rectified Output Current	I _O	150	mA
Repetitive Peak Forward Current @t=1us @t=1s	I _{FSM}	2 1	A
Power Dissipation	P _D	200	mW
Thermal Resistance Junction to Ambient	R _{θJA}	625	°C/W
Operating Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAS16W	Unit
Reverse Breakdown Voltage	I _R = 10uA	V _{BR}	75	V
Maximum Forward Voltage	I _F = 1mA I _F = 10mA I _F = 50mA I _F = 150mA	V _F	715 855 1000 1250	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 75V V _R = 20V	I _R	1000 25	nA
Typical Diode Capacitance	V _R = 0V, f = 1MHz	C _D	2	pF
Reverse Recovery time	I _{rr} = 1mA, I _R = I _F = 10mA R _L = 100Ω	trr	4	ns

**RATING AND CHARACTERISTIC CURVES
BAS16W**



Fig.1 Typical Forward Characteristics

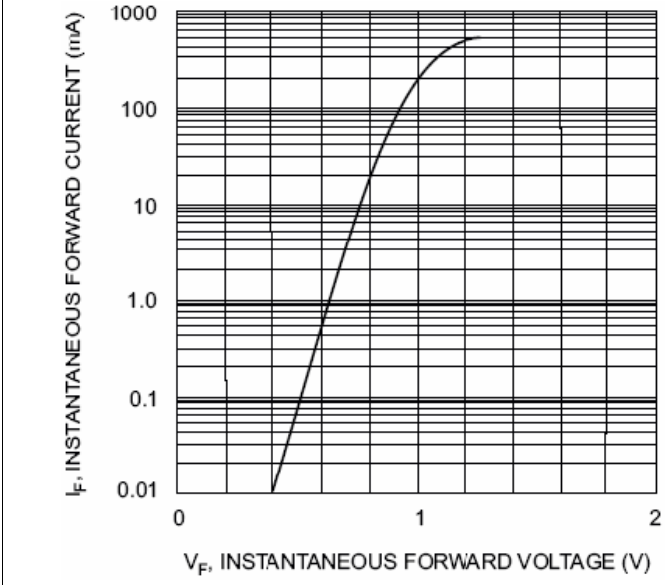
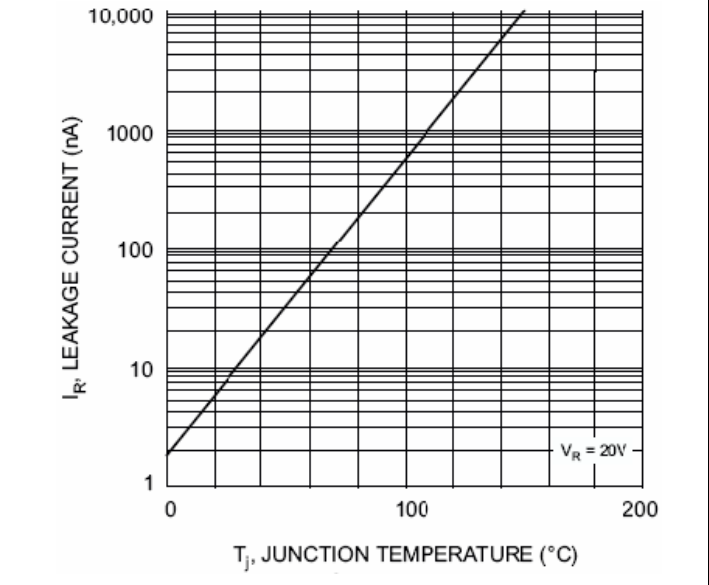


Fig.2 Typical Reverse Characteristics



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
BAS16W	A6	

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New Marking Rule Notification

Range: In order to have well management in process control, the new marking rule is applied to small signal device including Switching Diode, Transistor and Schottky Diode.

Package: SOT-23 / SOT-323 / SOT-523

