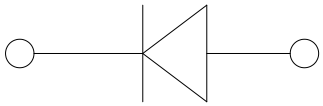
BAS16W

Small-Signal Fast Switching Diodes



Features

- V_R 75V
- I_{FAV} 200mA

Typical Applications

- Extreme fast switches

Mechanical Data

- **Package:** SOD123G
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T4

■ Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		100
Reverse voltage	V_R	V		75
Peak forward surge current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 0.5
Average forward current	I_{FAV}	mA		200
Power dissipation	P_{tot}	mW		350
Maximum junction temperature	T_j	℃		-55 ~+150
Storage temperature range	T_{stg}	℃		-55 ~+150
Thermal Resistance	R_{thJA}	K/W		315

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

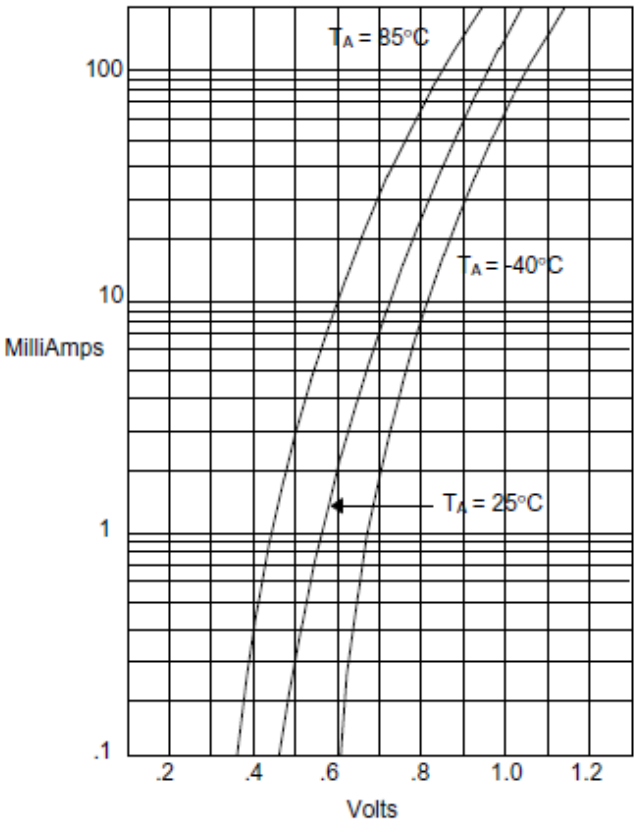
PARAMETER	SYMBOL	UNIT	Conditions	Min	Typ	Max
Maximum Forward voltage	V_F	V	I_F=1mA			0.715
	V_F	V	I_F=10mA			0.855
	V_F	V	I_F=50mA			1.0
	V_F	V	I_F=150mA			1.25
Maximum Reverse current	I_R	μA	V_R=75V			1.0
Minimum Breakdown voltage	V_R	V	I_R=100μA	100		
Maximum Diode capacitance	C_D	pF	V_R=V_F=0V, f =1MHz			4
Maximum Reverse recovery time	t_{rr}	ns	I_F=10mA,Irr=0.1I_R,R_L=100Ω			6

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS16W	F2	Approximate 0.011	3000	30000	120000	7” reel

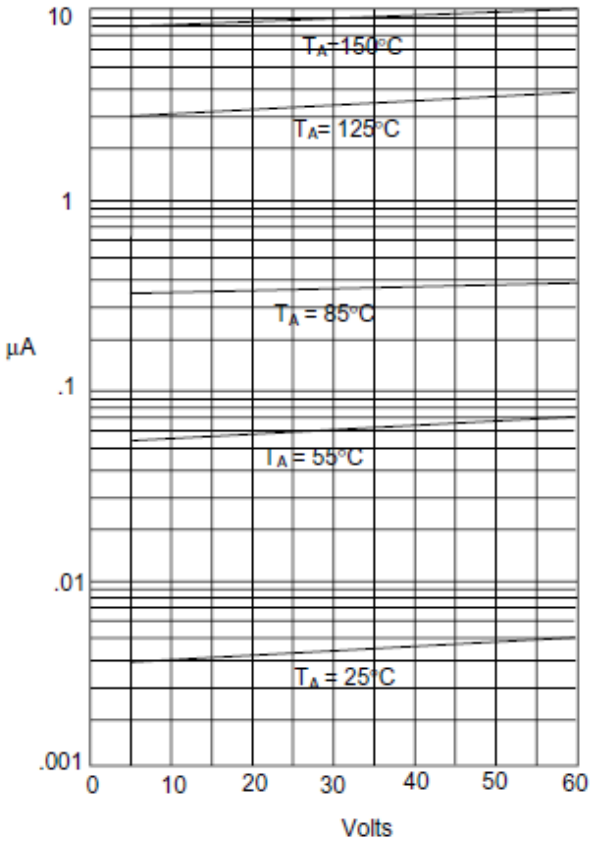
■ Characteristics (Typical)

Figure 1
Typical Forward Characteristics



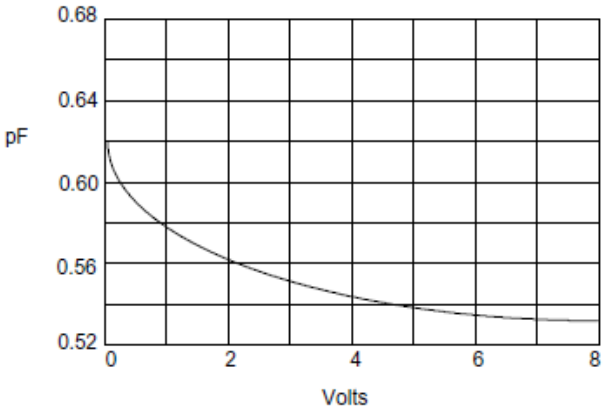
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



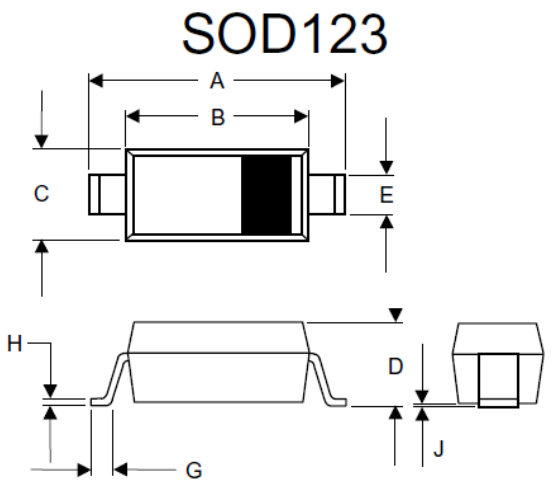
Instantaneous Reverse Current - MicroAmperes*versus*
Reverse Voltage - Volts

Figure 3
Diode Capacitance



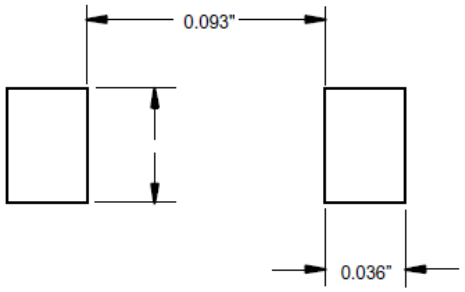
Diode Capacitance - pF*versus*
Reverse Voltage - Volts

■ Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

■ Soldering Footprint



Unit: mm

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