

Small-Signal Fast Switching Diodes



Features

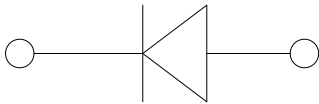
- V_R 75V
- I_{FAV} 200mA

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 ($T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$		-55 ~+150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-55 ~+150
Thermal Resistance	R_{thJA}	K/W		315

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

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



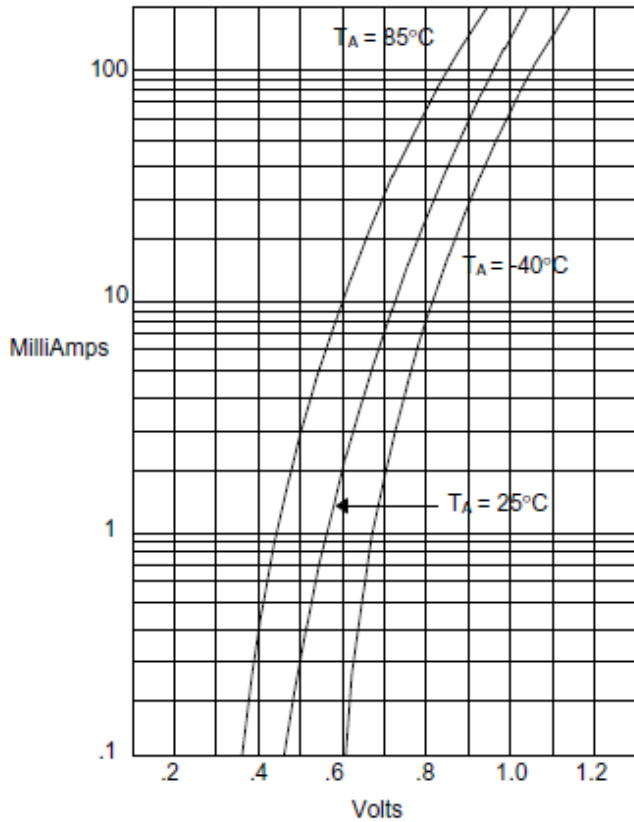
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■ Ordering Information (Example)

PREFERRED 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)

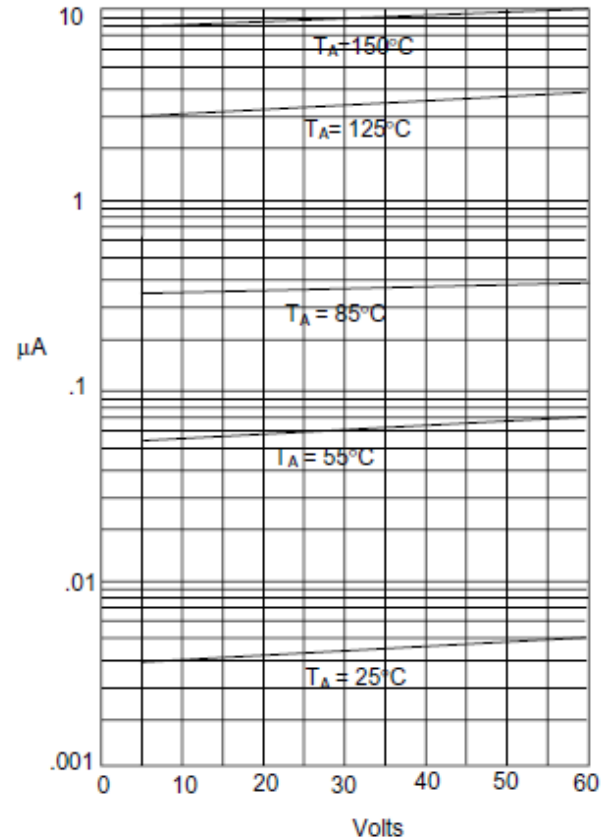
Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

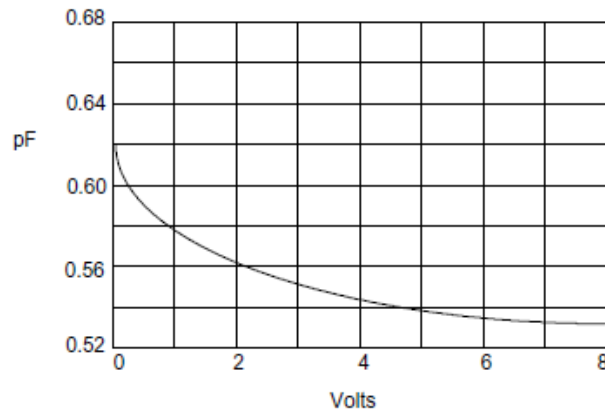
Figure 2

Typical Reverse Characteristics



Instantaneous Reverse Current - MicroAmperes versus
Reverse Voltage - Volts

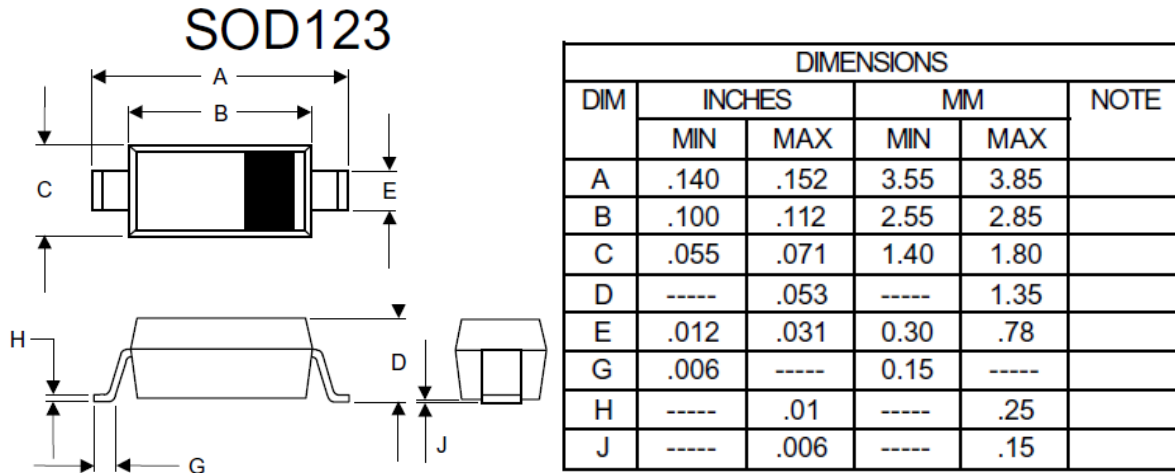
Figure 3
Diode Capacitance



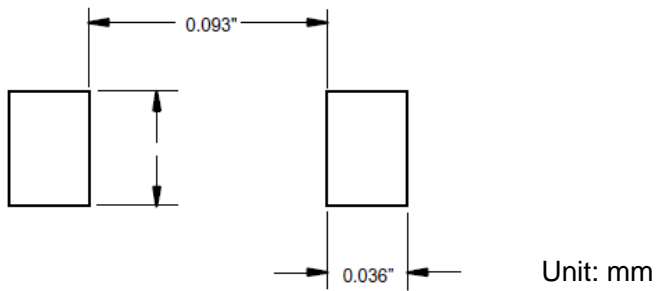
Diode Capacitance - pF versus
Reverse Voltage - Volts



■ Outline Dimensions



■ Soldering Footprint





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