

**SMALL SIGNAL DIODE**  
**VOLTAGE RANGE 30 Volts**

**FEATURES**

- \* Low Forward Voltage Drop
- \* Guard Ring Construction for Transient Protection
- \* Negligible Reverse Recovery Time
- \* Low Reverse Capacitance

**MECHANICAL DATA**

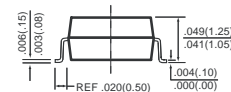
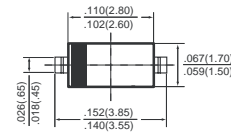
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.01 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**SOD-123**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (@ T<sub>A</sub>=25 °C unless otherwise noted)

RATINGS	SYMBOL	SD103BW	UNITS
Reverse Breakdown Voltage @ I <sub>R</sub> =10μA	V <sub>(BR)R</sub>	30	Volts
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	Volts
Maximum Working Peak reverse Voltage	V <sub>RWM</sub>		
Maximum DC Blocking Voltage	V <sub>R</sub>		
Maximum RMS Voltage	V <sub>R(RMS)</sub>	21	Volts
Maximum Forward Continuous Current	I <sub>FM</sub>	350	mAmps
Repetitive Peak Forward Current @ t<1.0S	I <sub>FRM</sub>	1.5	Amps
Typical Reverse Recovery Time(I <sub>F</sub> =I <sub>R</sub> =200mA, I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω)	T <sub>rr</sub>	10	nS
Typical Junction Capacitance(V <sub>R</sub> =0V, f=1.0MHz)	C <sub>T</sub>	50	pF
Maximum Power Dissipation	PD	400	mW
Typical Thermal Resistance	R <sub>θJA</sub>	300	°C/W
Operating and Storage Temperature Range	T <sub>STG</sub>	-65 to + 125	°C

**ELECTRICAL CHARACTERISTICS** (@ T<sub>A</sub>=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SD103BW	UNITS
Maximum Instantaneous Forward Voltage	@ I <sub>F</sub> =20mA	0.37	Volts
	@ I <sub>F</sub> =200mA	0.60	
Maximum Instantaneous Reverse Current	@ V <sub>R</sub> =20V	5.0	μAmps

## RATING AND CHARACTERISTICS CURVES ( SD103BW )

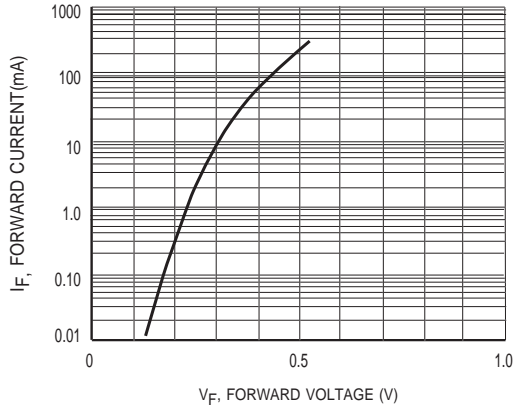


Figure1 Typical Forward Characteristics

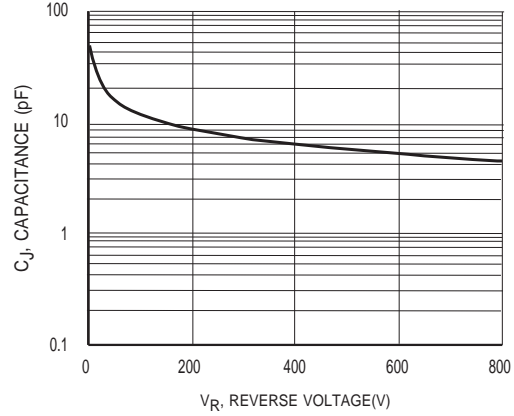


Figure2 Typical Junction Capacitance vs Reverse Voltage

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