

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* High surge current capability

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

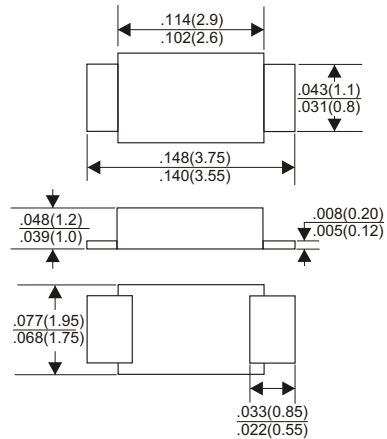
### VOLTAGE RANGE

100 Volts

### CURRENT

1.0 Ampere

#### SOD123FL



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	1N4002W	UNITS
Maximum Recurrent Peak Reverse Voltage	100	
Maximum RMS Voltage	70	V
Maximum DC Blocking Voltage	100	
Maximum Average Forward Rectified Current at Ta=75°C	1.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30	A
Maximum Instantaneous Forward Voltage at 1.0A	1.0	V
Maximum DC Reverse Current Ta=25°C	2.0	μA
at Rated DC Blocking Voltage Ta=125°C	100	μA
Typical Junction Capacitance (Note 1)	18	pF
Typical Thermal Resistance R <sub>JA</sub> (Note 2)	85	°C/W
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-65 — +150	°C

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (1N4002W)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

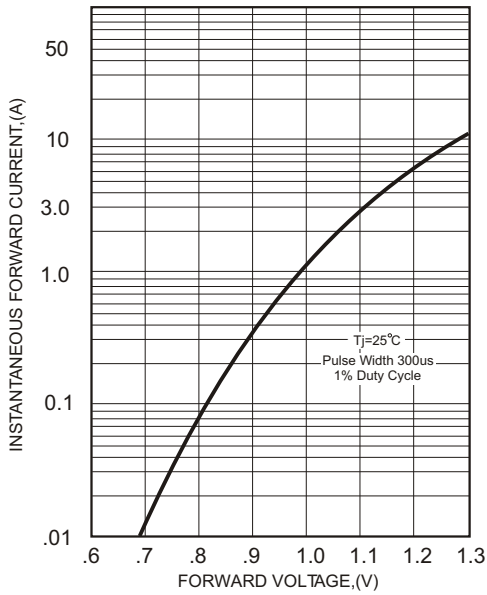


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

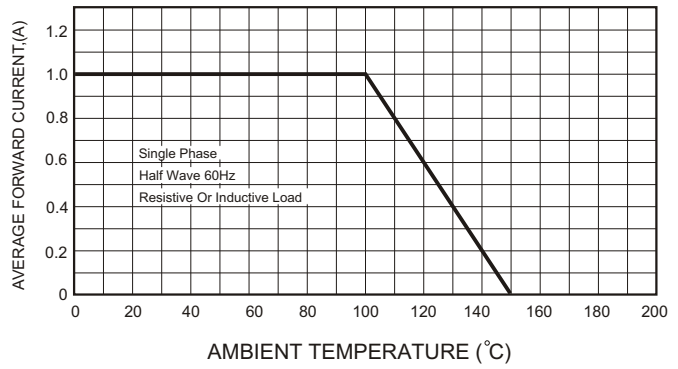


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

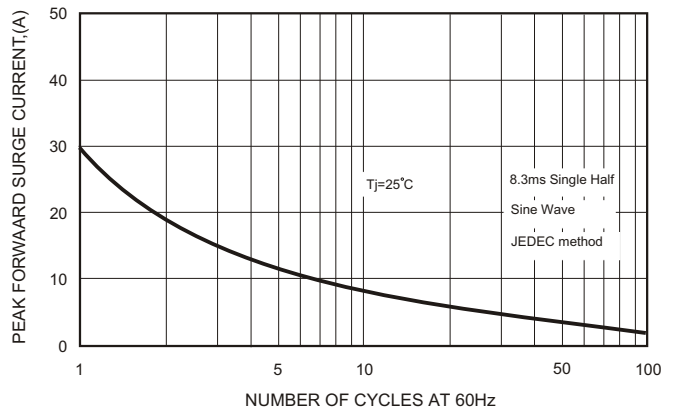


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

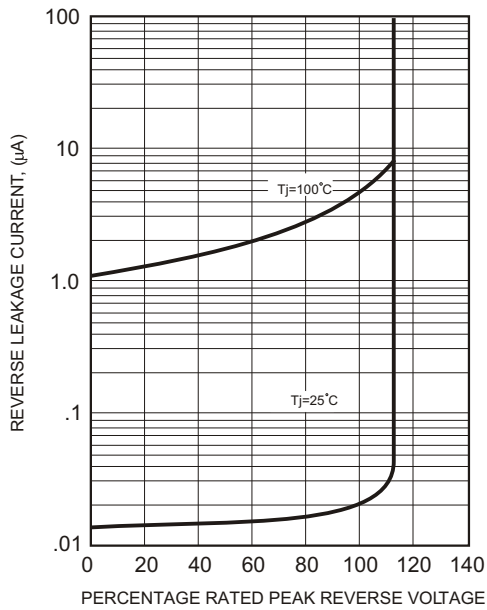


FIG.5-TYPICAL JUNCTION CAPACITANCE

