

**SMALL SIGNAL DIODE**
**VOLTAGE RANG 75 Volts CURRENT 0.5A mpere**
**FEATURES**

- \* Compact surface mount with same foot print as mini-melf
- \* High Breakdown Voltage
- \* Fast Switching Speed
- \* 400mW Power Dissipation
- \* General Purpose Switching Applications
- \* High Conductance
- \* P/N suffix V means AEC-Q101 qualified, e.g:1N4148WV
- \* P/N suffix V means Halogen-free

**MECHANICAL DATA**

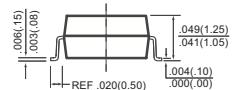
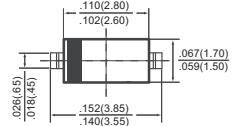
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.01 gram
- \* Marking:T4

**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 (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	1N4148W	UNITS
Non-Repetitive Peak Reverse Voltage	VRM	120	Volts
Maximum Repetitive Peak Reverse Voltage	VR <sub>RM</sub>		
Maximum Working Peak reverse Voltage	VR <sub>WM</sub>	120	Volts
Maximum DC Blocking Voltage	VR		
Maximum RMS Voltage	VR <sub>MS</sub>	53	Volts
Maximum Forward Continuous Current	IFM	300	mAmps
Maximum Average Forward Rectified Current	IO	500	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uS @t=1.0S	IFSM	
		2.0 1.0	Amps
Typical Reverse Recovery Time	Tr <sub>r</sub>	4	nS
Typical Junction Capacitance	C <sub>T</sub>	2	pF
Maximum Power Dissipation	P <sub>D</sub>	500	mW
Typical Thermal Resistance	R <sub>θJA</sub>	315	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>TSG</sub>	-65 to + 150	°C

**ELECTRICAL CHARACTERISTICS (@ TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	1N4148W	UNITS
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.715 0.855 1.0 1.25	Volts
@IF=1.0mA			
@IF=10mA			
@IF=50mA			
@IF=500mA			
Maximum Instantaneous Reverse Current	I <sub>R</sub>	25	nAmps
@VR=20V @VR=75V		1.0	uAmps

## RATING AND CHARACTERISTICS CURVES (1N4148W )

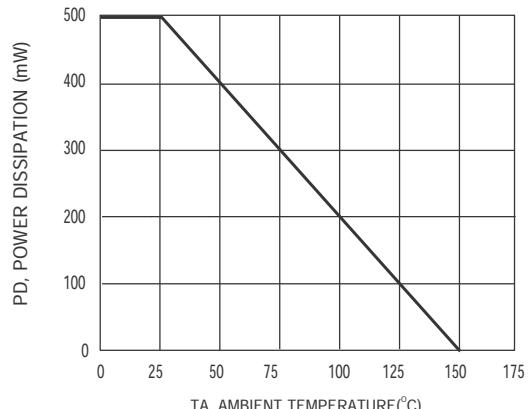


FIG.1 FORWARD DERATING CURVE

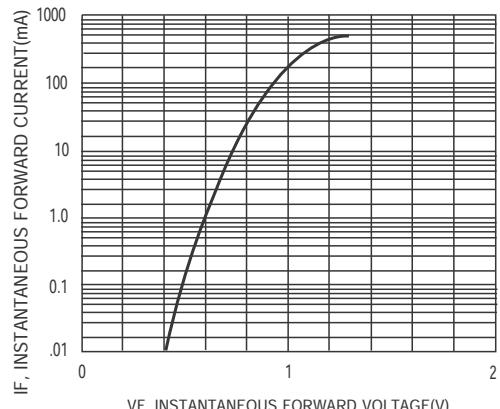


FIG.2 FORWARD CHARACTERISTICS

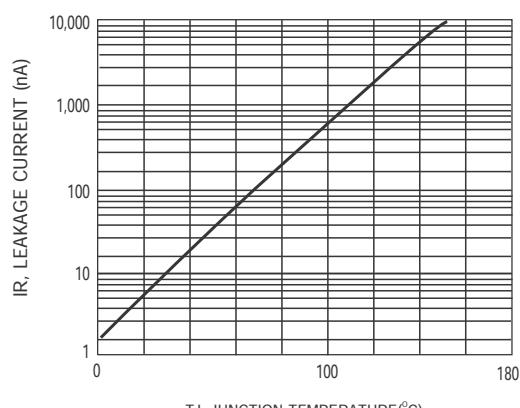
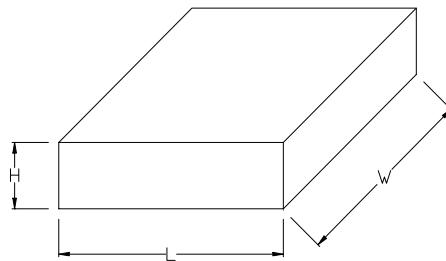


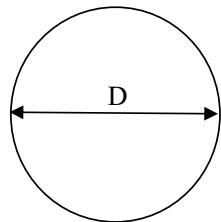
FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

### 1. BOX



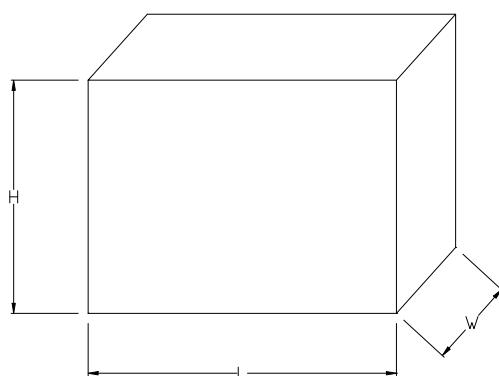
Packing Code	L (mm)	W (mm)	H (mm)
-T/W	338	338	40

### 2. REEL



Packing Code	D (mm)
-T/W	178

### 3. CARTON



Packing Code	L (mm)	W (mm)	H (mm)
-T/W	360	355	360

## PACKAGING OF DIODE

### REEL PACK

PACKAGE	PACKING CODE	REEL ( EA )	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123	-T	3,000	---	---	178	438*438*220	180,000	9.00

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