

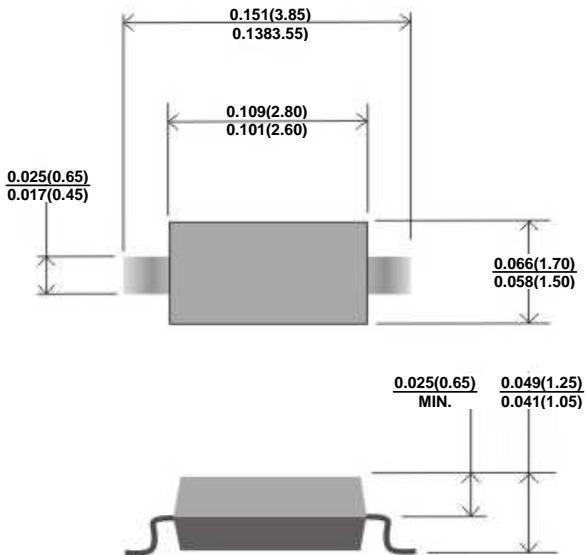


1N4148W, 1N4448W

SURFACE MOUNT SWITCHING DIODES

Reverse Voltage - 100 Volts, Power 350-400mW

SOD-123



Dimensions in inches and (millimeters)

FEATURES

- ◆ Fast switching speed
- ◆ Electrically Identical to Standard JEDEC
- ◆ High Conductance
- ◆ Surface Mount Package Ideally Suited for Automatic Insertion
- ◆ Flat package SOD-123 in stead mini-MELF package

MECHANICAL DATA

Case: SOD-123, Molded plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.01 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	1N4148W	1N4448W	UNITS
Reverse Voltage	V_R	75	75	Volts
Peak Reverse Voltage	V_{RM}	100	100	Volts
Maximum RMS voltage	V_{RMS}	50	50	Volts
Minimum DC Breakdown Voltage	V_{DC}	75	75	Volts
Maximum Average Forward Current at $T_a = 25^\circ\text{C}$	$I_{(AV)}$	150	250	mA
Peak Forward Surge Current, 1.0μs single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2.0	4.0	Amps
Power Dissipation Derate Above 25°C	P_{TOT}	350	400	mW
Maximum Forward Voltage @ $I_F=10\text{ mA}$ @ $I_F=5\text{ mA}$	V_F	1.0 -	1.0 0.72	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$	I_R	1.0	2.5	μA
Typical Junction Capacitance (NOTE 1)	C_J	4.0	4.0	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	4.0	4.0	ns
Maximum Thermal Resistance	$R_{\theta JA}$	450	450	$^\circ\text{C/W}$
Operating Junction & Storage Temperature Range	$T_{STG} \& T_J$	-55 TO +125		$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. From $I_F=10\text{ mA}$ to $I_R=1\text{ mA}$, $VR=6\text{ Volts}$, $RL=100$



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD DERATING CURVE

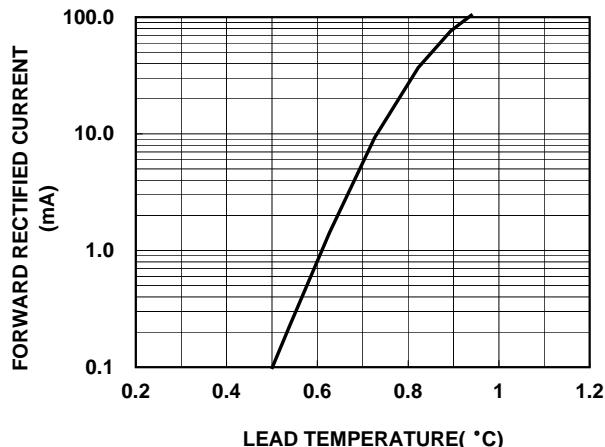


FIG. 2-TYPICAL JUNCTION RATINGS

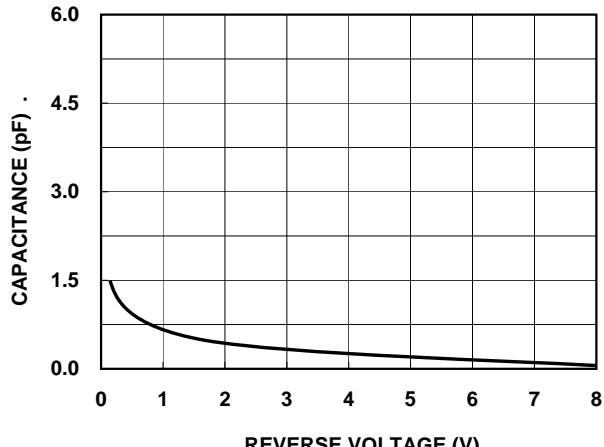


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

