

## 1N4148WS

# 200mW Surface Mount Switching Diode-100V

#### **Features**

- Fast switching speed.
- Electrically identical to standard JEDEC.
- Surface mount package ideally suited for automatic insertion.
- Tiny plastic SMD package.
- RoHS Compliant
- Compliant to Halogen-free
- High Conductance.
- Silicon epitaxial planar chip.
- Lead-free parts for green partner, exceeds environmental standards of MIL-STD-19500 /228

#### Mechanical data

• Epoxy: UL94-V0 rated flame retardant

• Case: Molded plastic, SOD-323

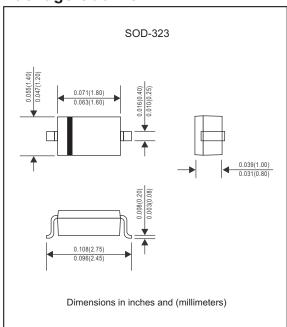
• Terminals : Plated terminals, solderable per MIL-STD-750,

Method 2026

• Polarity: Indicated by cathode band

• Mounting Position : Any

### **Package Outline**



### Maximum ratings and Electrical Characteristics (AT T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	Symbol	1N4148WS	UNIT
Maximum reverse voltage	V <sub>R</sub>	75	V
Maximum peak reverse voltage	V <sub>RM</sub>	100	V
Maximum RMS voltage	V <sub>RMS</sub>	50	V
Maximum DC blocking voltage	V <sub>DC</sub>	75	V
Maximum average forward current at T <sub>A</sub> = 25°C	Io	200	mA
Maximum peak forward surge current, 1.0us	I <sub>FSM</sub>	2.0	А
Maximum power dissipation derate above 25°C	P <sub>D</sub>	200	mW
Maximum forward voltage	V <sub>F</sub>	0.715@IF=0.001A 0.855@IF=0.01A 1.0@IF=0.05A 1.25@IF=0.15A	V
Maximum DC reverse current at rated DC blocking voltage T <sub>J</sub> = 25°C	I <sub>R</sub>	0.025@VR=20V 1.0@VR=75V	uA
Typical junction capacitance (Notes 1)	C <sub>J</sub>	2.0	pF
Maximum reverse recovery time (Notes 2)	t <sub>rr</sub>	8.0	ns
Typical thermal resistance junction to ambient	R <sub>eJA</sub>	500	°C/W
Operating junction and Storage Temperature Range	$T_J, T_STG$	-55 to +150	°C

#### Notes:

1.  $C_{J}$  at  $V_{R}$  = 0V, f = 1MHZ

2. From  $I_F = 10$ mA to  $I_R = 1$ mA,  $V_R = 6$ V,  $R_L = 100$ ohm

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## Rating and characteristic curves

Fig. 1 TYPICAL FORWARD CHARACTERISTICS

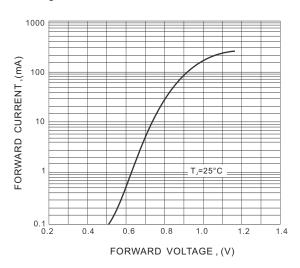


Fig. 2 TYPICAL REVERSE CHARACTERISTICS

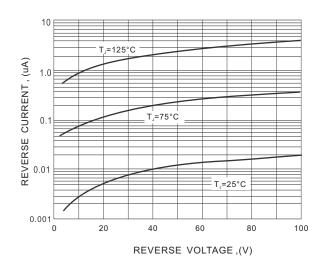
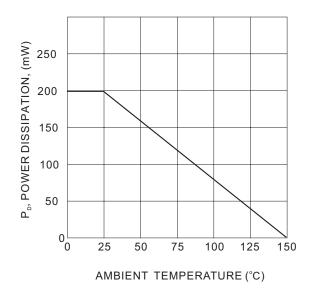


Fig. 3 POWER DERATING CURVE



## Marking

Type number	Marking code
1N4148WS	T4

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