

**FAST SWITCHING DIODE**  
**VOLTAGE 75 Volts CURRENT 150 mAmperes**

**FEATURES**

- \* Flat Lead SOD-323 Small Outline Plastic Package
- \* Surface Device Type Mounting
- \* Fast Switching Device ( $T_{rr} < 4.0nS$ )
- \* Moisture Sensitivity Level 1
- \* General Purpose Diodes
- \* Clip Bonding Construction, Good Thermal Capability
- \* Pb Free Version and ROHS Compliant
- \* Matte Tin(Sn) Lead Finish with Nicke(Ni) Underplate
- \* Band Indicates Cathode

SOD-323



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%.

**Absolute Maximum Ratings** (@  $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	1N4148WSG	UNITS
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	100	Volts
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75	Volts
Continuous Forward Current	I <sub>O</sub>	150	mAmps
Repetitive Peak Forward Current	I <sub>FRM</sub>	0.3	Amps
Power Dissipation	PD	200	mW
Operating Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

**ELECTRICAL CHARACTERISTICS** (@  $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS	SYMBOL	1N4148WSG	UNITS
Forward Voltage @I <sub>F</sub> =10mA	V <sub>F</sub>	1.0	Volts
Reverse Leakage Current @V <sub>R</sub> =20V @V <sub>R</sub> =75V	I <sub>R</sub>	25 5	nAmps uAmps
Breakdown Voltage @I <sub>R</sub> =100uA @I <sub>R</sub> =5uA	V <sub>R</sub>	100 75	Volts
Reverse Recovery Time (I <sub>F</sub> =10mA, I <sub>R</sub> =60mA, R <sub>L</sub> =100 Ω, I <sub>RR</sub> =1mA)	T <sub>rr</sub>	4	nS
Capacitance (V <sub>R</sub> =0V, f=1MHz)	C <sub>j</sub>	4	pF

## RATING AND CHARACTERISTICS CURVES ( 1N4148WSG )

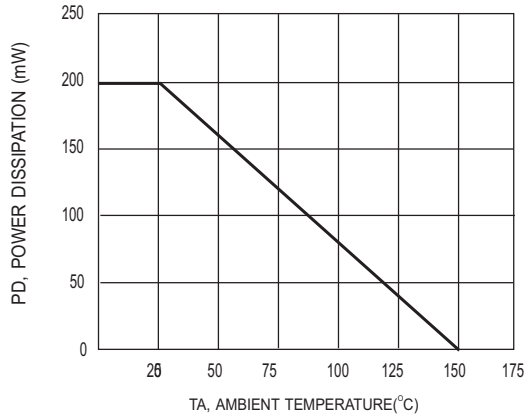


FIG.1 FORWARD DERATING CURVE

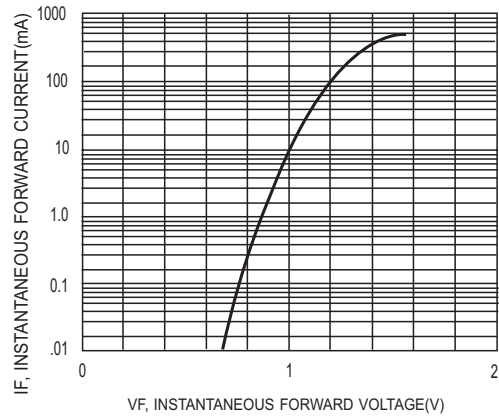


FIG.2 FORWARD CHARACTERISTICS

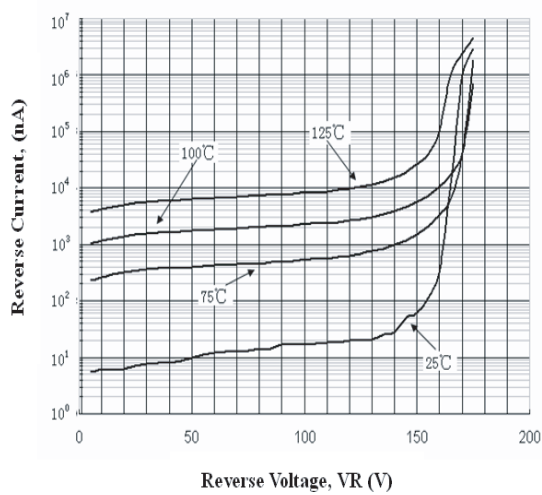


FIG.3 REVERSE CURRENT VS REVERSE VOLTAGE

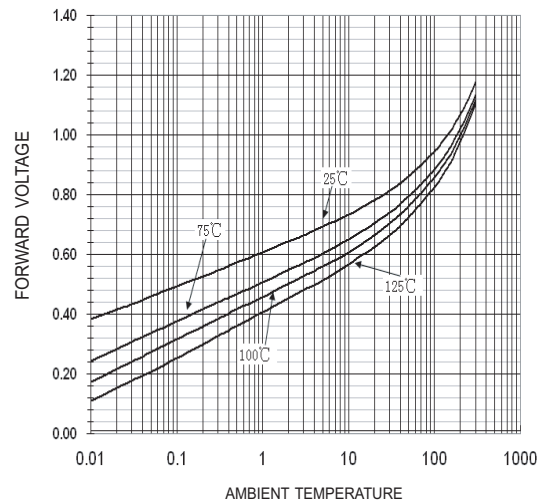
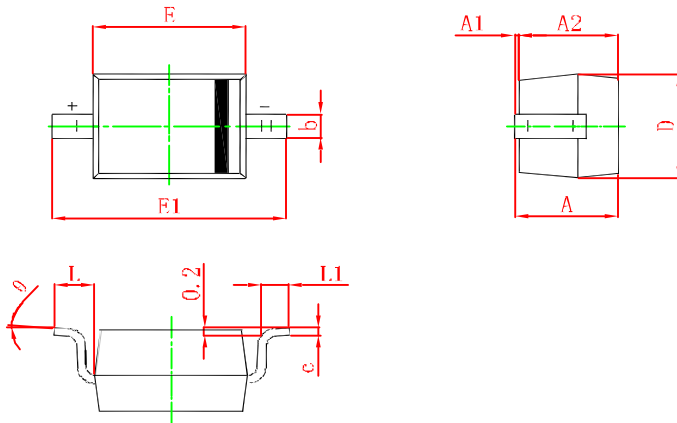


FIG.4 FORWARD VOLTAGE VS AMBIENT TEMPERATURE

**SOD-323 PACKAGE OUTLINE**  
**SOD-323**

Plastic surface mounted package



Symbol	Min.(mm)	Max.(mm)
<b>A</b>		1.000
<b>A1</b>	0.000	0.100
<b>A2</b>	0.800	0.900
<b>b</b>	0.250	0.350
<b>c</b>	0.080	0.150
<b>D</b>	1.200	1.400
<b>E</b>	1.600	1.800
<b>E1</b>	2.500	2.700
<b>L</b>	0.475REF	
<b>L1</b>	0.250	0.400
<b>θ</b>	0°	8°

**PACKAGING OF DIODE AND BRIDGE RECTIFIERS**

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-323	-T	3,000	15,000	---	---	178	390*205*31	120,000	5.17

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