

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 ($T_{rr} < 4.0\text{nS}$)
- * 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
- * P/N suffix V means AEC-Q101 qualified, e.g:1N4148WSV
- * P/N suffix V means Halogen-free

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-323



Marking:T4

Absolute Maximum Ratings (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	1N4148WSV	UNITS
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	Volts
Repetitive Peak Reverse Voltage	V_{RRM}	75	Volts
Continuous Forward Current	I_O	150	mAmps
Repetitive Peak Forward Current	I_{FRM}	0.3	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2	Amps
Typical Current Square Time	I^2T	0.02	A^2S
Power Dissipation	PD	200	mW
Operating Junction Temperature	T_J	+150	°C
Storage Temperature Range	T_{STG}	-65 to + 150	°C

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

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

CHARACTERISTICS	SYMBOL	1N4148WSV	UNITS
Forward Voltage @IF=10mA	V_F	1.0	Volts
Reverse Leakage Current @VR=20V @VR=75V	I_R	25	nAmps
		5	uAmps
Breakdown Voltage @IR=100uA @IR=5uA	V_R	100	Volts
		75	
Reverse Recovery Time (IF=10mA, IR=60mA, RL=100 , IRR=1mA)	T_{rr}	4	nS
Capacitance (VR=0V, f=1MHz)	C_j	4	pF

RATING AND CHARACTERISTICS CURVES (1N4148WSV)

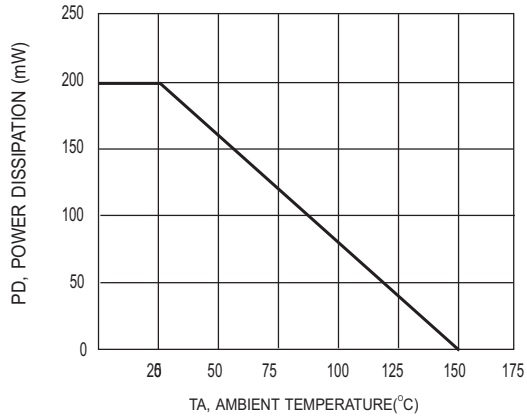


FIG.1 FORWARD DERATING CURVE

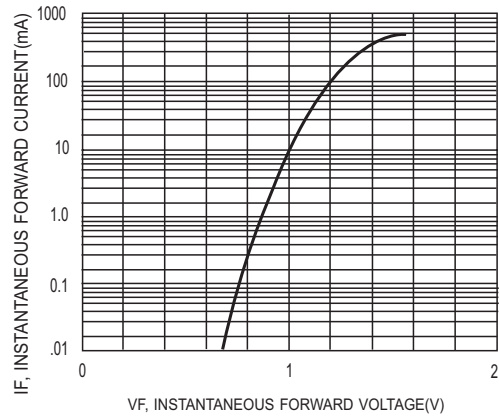


FIG.2 FORWARD CHARACTERISTICS

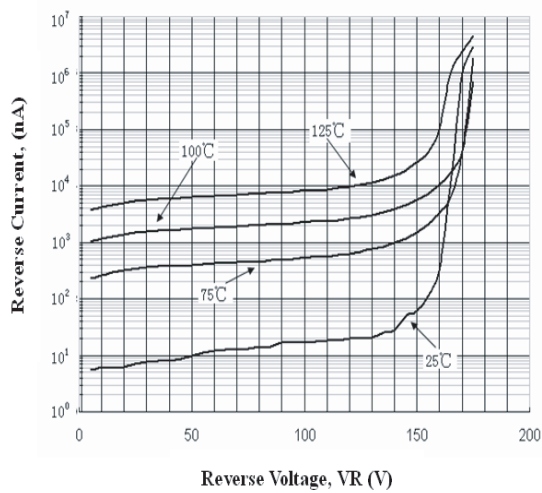


FIG.3 REVERSE CURRENT VS REVERSE VOLTAGE

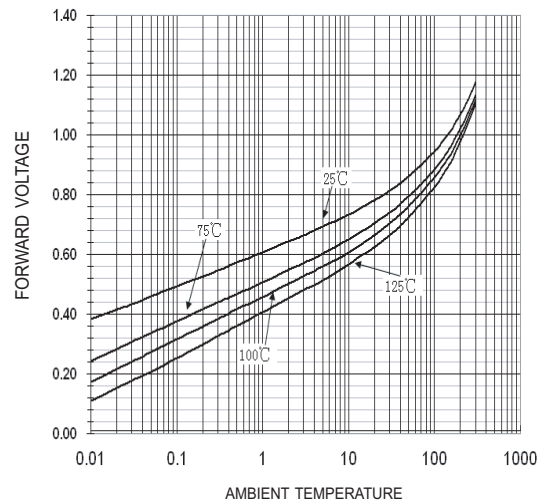
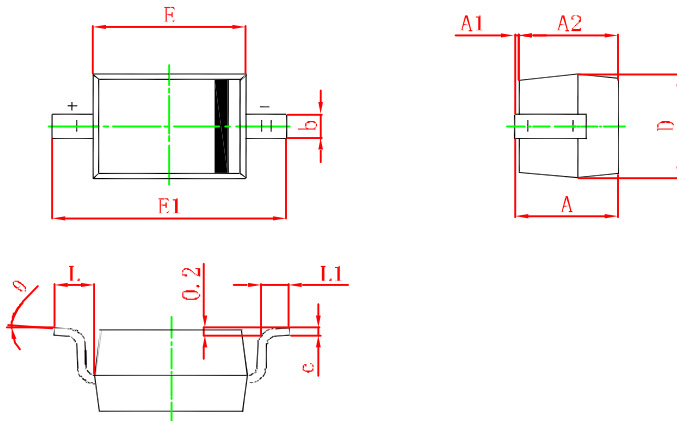


FIG.4 FORWARD VOLTAGE VS AMBIENT TEMPERATURE

SOD-323 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Min.(mm)	Max.(mm)
A		1.200
A1	0.000	0.100
A2	0.800	1.100
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	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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