

1N4148WS

SWITCHING RECTIFIERS



VOLTAGE 75 Volts **POWER** 200 mWatts **SOD-323** **Unit:Inch(mm)**

FEATURES

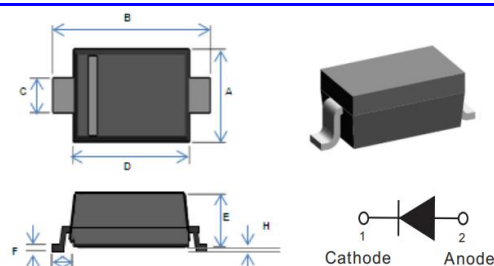
- Surface Mounted Device
- Fast Switching Speed
- Moisture sensitivity level (MSL): 1
- Pb free and RoHS compliant

MECHANICAL DATA

- Case: Bend lead SOD-323 package
- High temperature soldering guaranteed: 260°C/10s
- Weight: 4.5mg (approximately)
- Marking: T4

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications



DIM.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	1.15	1.40	0.045	0.055
B	2.30	2.70	0.091	0.106
C	0.25	0.45	0.010	0.018
D	1.60	1.80	0.063	0.071
E	0.80	1.00	0.031	0.039
F	0.05	0.17	0.002	0.007
G	0.475 Ref.		0.19 Ref.	
H	-	0.10	-	0.004

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C(UNLESS OTHERWISE NOTED))

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

Parameter	Symbol	VALUE	Unit
Peak Reverse Voltage	V_{RM}	100	V
DC Blocking Voltage	V_R	75	V
Non-repetitive peak forward current	I_{FM}	300	mA
Average rectified output current	I_o	150	mA
Peak forward surge current @t=1μs	I_{FSM}	2	A
Power dissipation	P_D	200	mW
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STD}	-55 to +150	°C

Parameter	Symbol	TEST CONDITION	Min.	Typ.	Max.	Unit
Forward voltage	V_{F1}	$I_F = 1mA$			0.715	V
	V_{F2}	$I_F = 10mA$			0.885	V
	V_{F3}	$I_F = 50mA$			1	mA
	V_{F4}	$I_F = 150mA$			1.25	mA
Reverse leakage current	I_{R1}	45000			1	uA
	I_{R2}	$V_R=20V$			25	nA
Capacitance between terminals	C_T	$V_R=0V, f=1MHz$			2	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			4	ns

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RATING AND CHARACTERISTIC CURVES

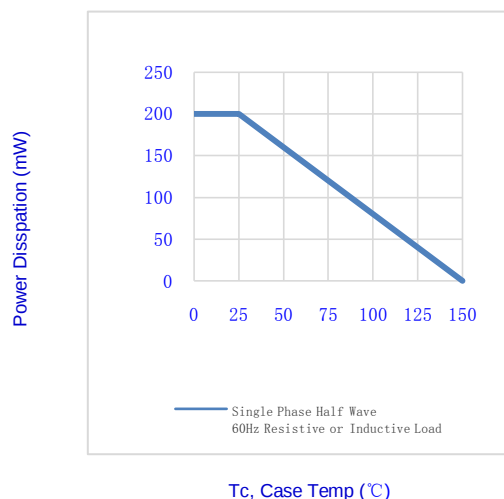


Fig.1-POWER DRATING CURVE

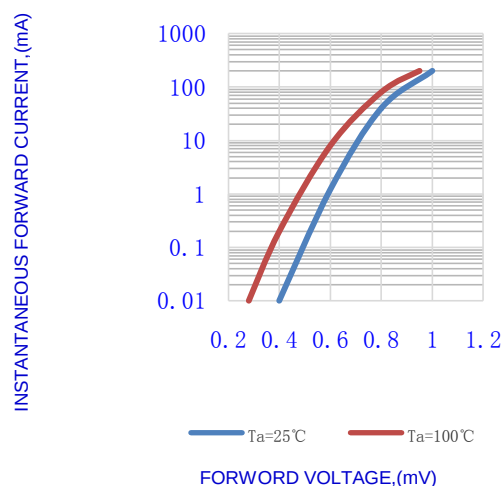


Fig.2- TYPICAL INSTANTANEOUS FORWARD

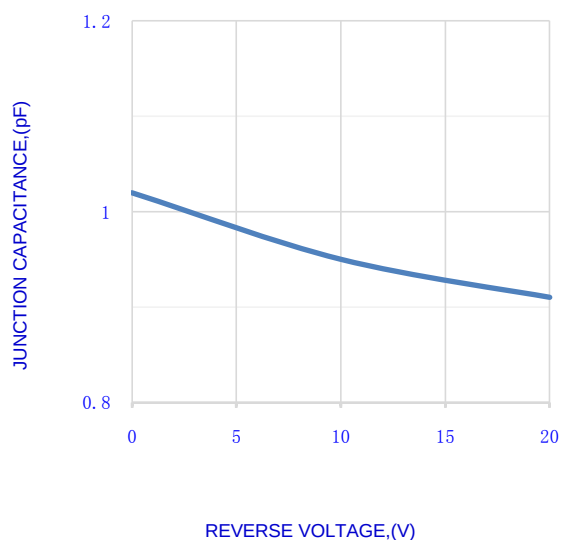


Fig.3- TYPICAL JUNCTION CAPACITANCE

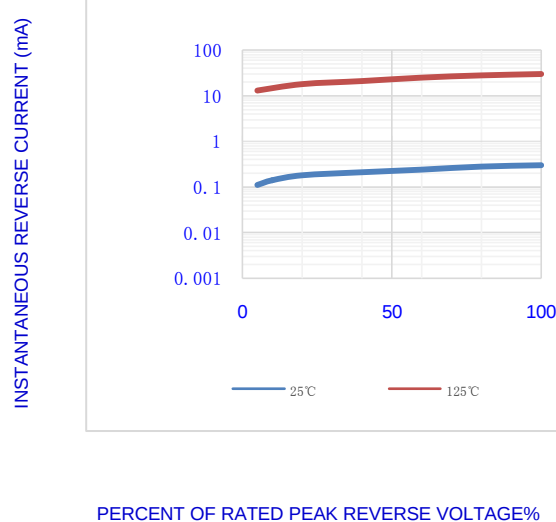


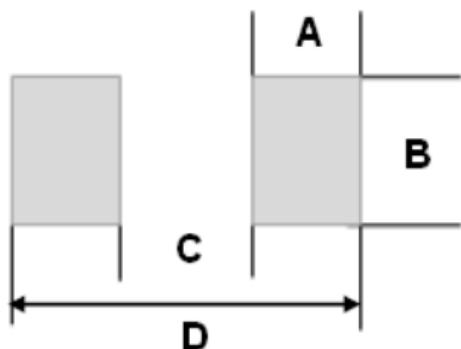
Fig.4- TYPICAL REVERSE CHARACTERISTICS

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OUTLINE DRAWINGS



DIM.	Unit(mm)	Unit(mm)
	Typ.	Typ.
A	0.63	0.025
B	0.83	0.033
C	1.60	0.063
D	2.86	0.113

PCB Design(Recommended land dimensions for SOD-323 diode. Electrode patterns for PCBs)

Packing Information

Product code	Pack	Reel Size (mm)	Quantity(pcs/reel)	Quantity(reel/box)	Carton Size L×W×H (mm)	Quantity(box/carton)
SOD-323	T/R	180	3000	45000	430×430×230	4