

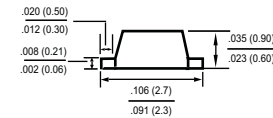
**FAST SWITCHING DIODE**  
**VOLTAGE 75 Volts CURRENT 150 mAmperes**

**FEATURES**

- \* Flat Lead SOD-323F 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
- \* Halogen-free
- \* Marking :1N4148WS-----T4  
1N4448WS-----T5  
1N914BWS-----T6



**SOD-323F**



Dimensions in inches and (millimeters)

**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	1N4148WS	1N4448WS	1N914BWS	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
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>		2		Amps
Typical Current Square Time	I <sup>2</sup> T		0.02		
Power Dissipation	PD		200		mW
Operating Junction Temperature	T <sub>J</sub>		-55 to + 150		°C
Storage Temperature Range	T <sub>STG</sub>		-55 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	Min	Max	UNITS
Forward Voltage 1N4448WS,1N914BWS @IF=5mA 1N4148WS @IF=10mA 1N4448WS,1N914BWS @IF=100mA	V <sub>F</sub>	0.62 - -	0.72 1.0 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, V <sub>R</sub> =6V, R <sub>L</sub> =100Ω, I <sub>RR</sub> =1mA)	T <sub>rr</sub>	-	4	nS
Capacitance (V <sub>R</sub> =0V, f=1MHz)	C	-	4	PF

Note: " RoHS Compliant".

# RATING AND CHARACTERISTICS CURVES (1N4148WS,1N4448WS,1N914BWS)

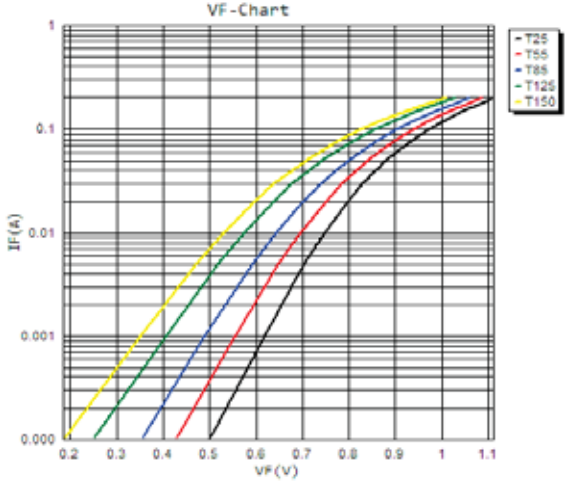


Fig.1 Forward current(IF) vs Forward voltage(VF)

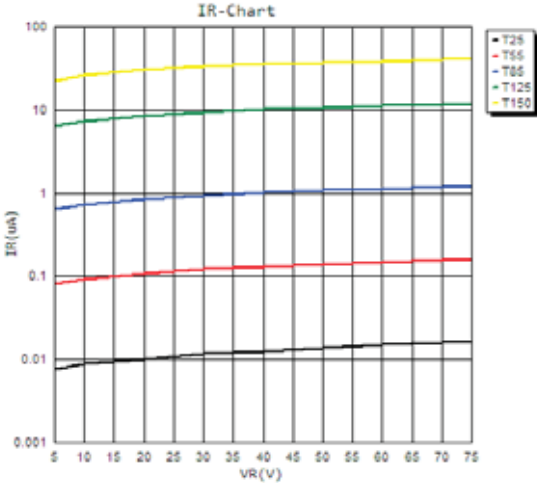


Fig.2 Reverse current(IR) vs Reverse voltage(VR)

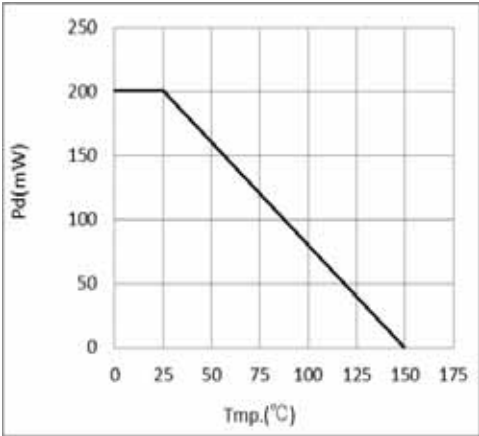


Fig.3 Power Derating Curve

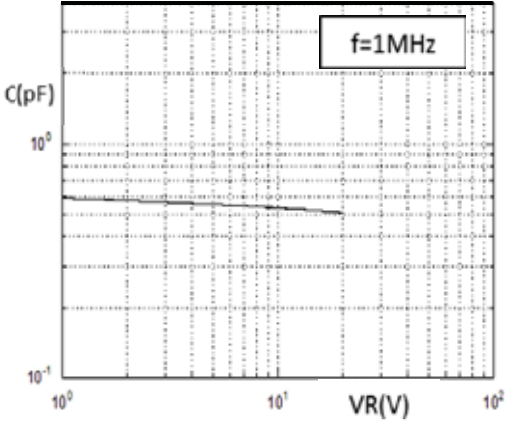
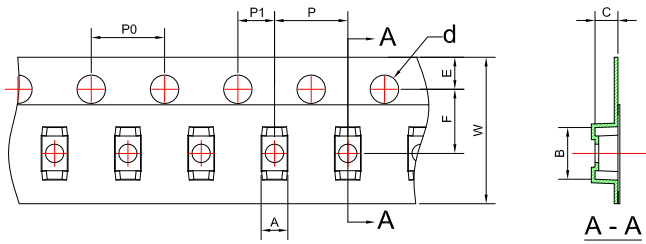


Fig.4 Capacitance vs Reverse voltage(VR)

## SOD-323F Embossed Carrier Tape

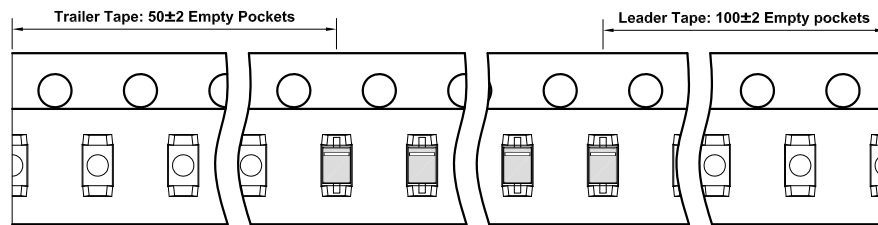
## Packaging Description:



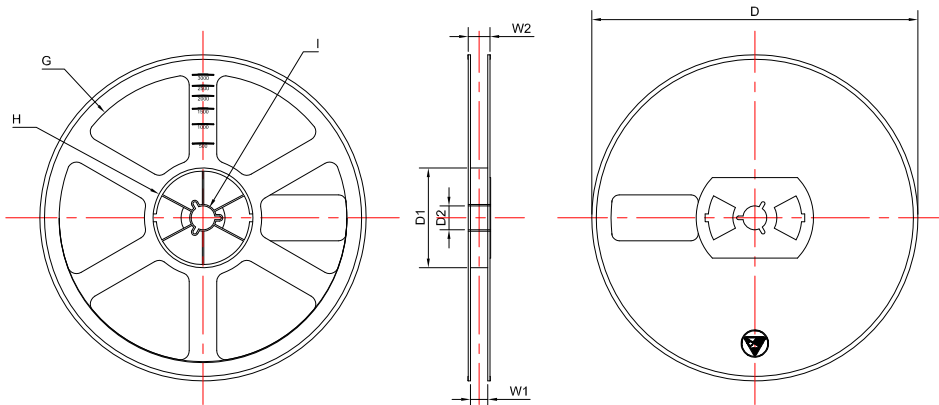
SOD-323F parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. The reels are blue in color and made of recyclable plastic.

Dimensions are in millimeter										
Pkg Type	A	B	C	d	E	F	P0	P	P1	W
SOD-323F	1.46	2.90	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
(Tolerance)	±0.05	±0.05	±0.05	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.3/-0.1

## SOD-323F Tape Leader and Trailer



## SOD-323F Reel



Unit: mm

Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	±2	±1	±1	±1	±1	±1	±1	±1

## Packaging Quantity

Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
3,000	7 inch	45,000	210*208*203	180,000	440*440*230

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