

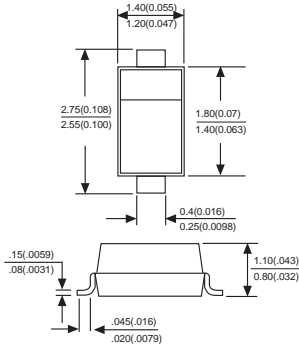


# 1N4001WS THRU 1N4007WS

## SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage - 50-1000 Volts Forward Current - 1.0 Amperes

### SOD-323



### FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass Passivated Chip Junction
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

#### Case SOD-323

Terminals Plated leads solderable per MIL-STD-750, Method 2026

Weight: 5.48mg / 0.00019oz

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	4001	4002	4003	4004	4005	4006	4007	UNITS
Marking code		MDD D1	MDD D2	MDD D3	MDD D4	MDD D5	MDD D6	MDD D7	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_C=125^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25							Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	5.0 50.0							$\mu\text{A}$
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Typical reverse recovery time (NOTE 2)	$T_{rr}$	1800							Ns
Typical junction capacitance (NOTE 3)	$C_J$	5							pF
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

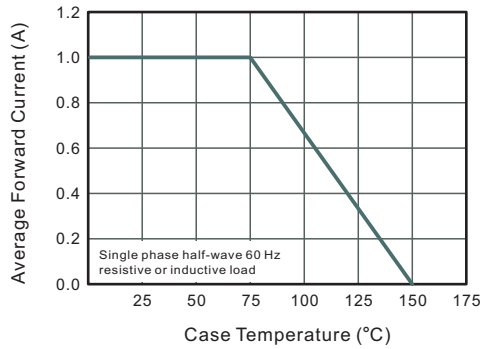
#### NOTE

- (1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
- (2) Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$
- (3) Measured at 1 MHz and applied reverse voltage of 4 V D.C

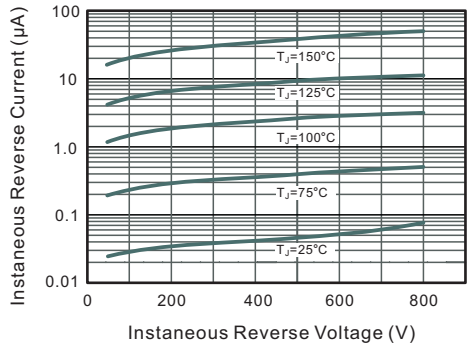


# RATINGS AND CHARACTERISTIC CURVES 1N4001WS THRU 1N4007WS

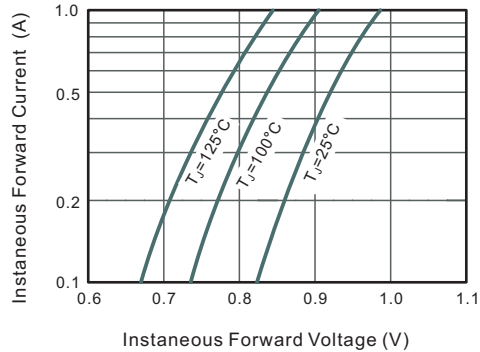
**Fig.1 Forward Current Derating Curve**



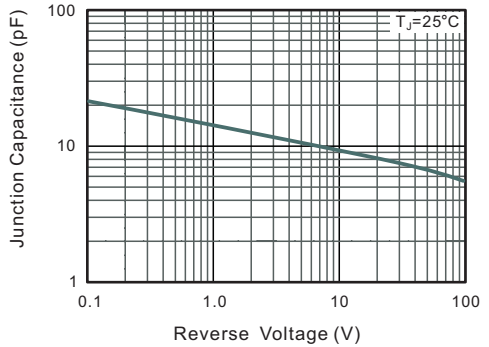
**Fig.2 Typical Instantaneous Reverse Characteristics**



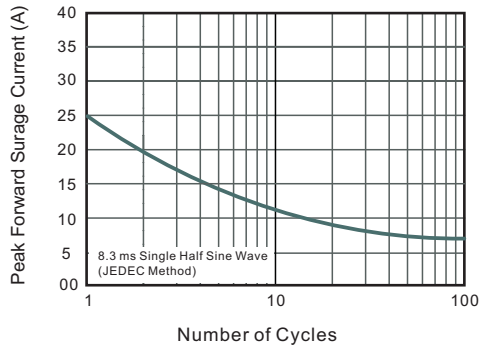
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

