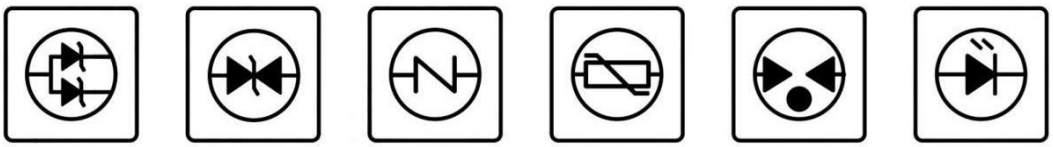
MSKSEMI 美森科
SEMICONDUCTOR



1N4001WS-1N4007WS

Product specification

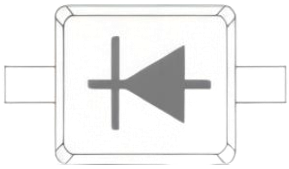
FEATURES

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering ：
  260C/10 seconds at terminals

MECHANICAL DATA

- **Case:** SOD-323 molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per JESD22-B102
- **Polarity:** Laser band denotes cathode end

Reference News

PACKAGE OUTLINE	Circuit	PINNING	
 SOD-323		PIN	DESCRIPTION
		1	Cathode
		2	Anode

Maximum Ratings & Thermal Characteristics

(TA = 25 °C unless otherwise noted).

Items	Symbol	1N4001WS 1A	1N4002WS 2A	1N4003WS 3A	1N4004WS 4A	1N4005WS 5A	1N4006WS 6A	1N4007WS 7A	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T_L = 90 ℃	$_{F(AV)}$	1							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	25							A
Thermal resistance from junction to lead(1)	$R_{\theta JL}$	35							℃/W
Operating junction range	T_J	−55 to +150							℃
Storage temperature range	T_{STG}	−55 to +150							℃

Note 1: Mounted on PCB with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas .

Electrical Characteristics(TA = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I_F =0 .5A		V_F	-	0.92	-	V
	I_F= 1 A				0.98	1.1	
Reverse current	V_R= V_{DC}	T_A = 25 ℃	I_R			5	μA
		T_A = 125 ℃				50	

Note 2: Pulse test: 300 ps pulse width, 1 % duty cycle.

RATING AND CHARACTERISTIC CURVES (1N4001WS THRU 1N4007WS)

Fig.1 Forward Current Derating Curve

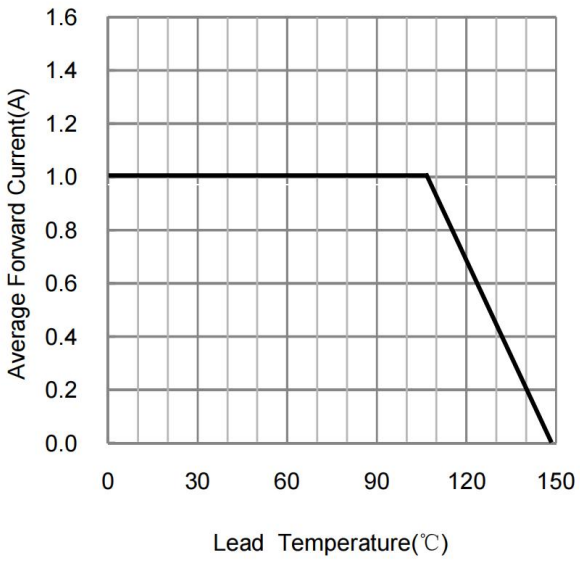


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

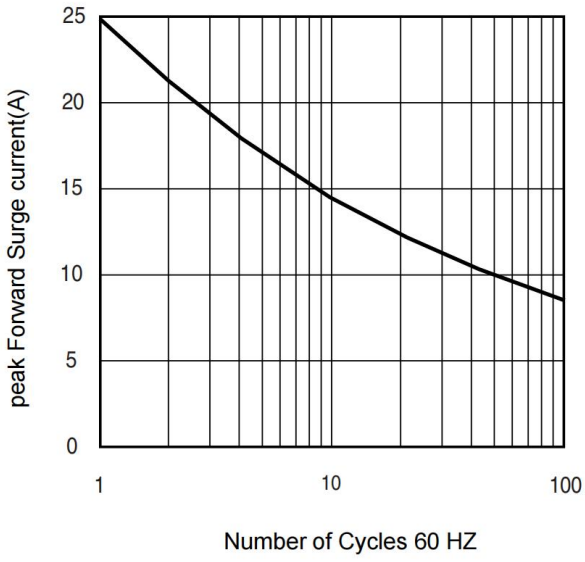


Fig.3 Typical Instantaneous Forward Characteristics

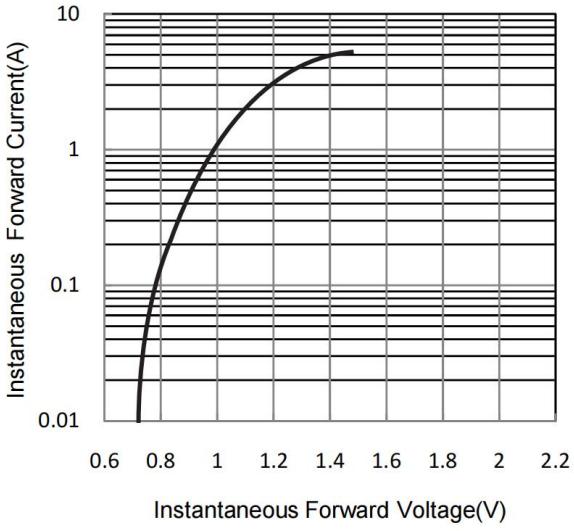
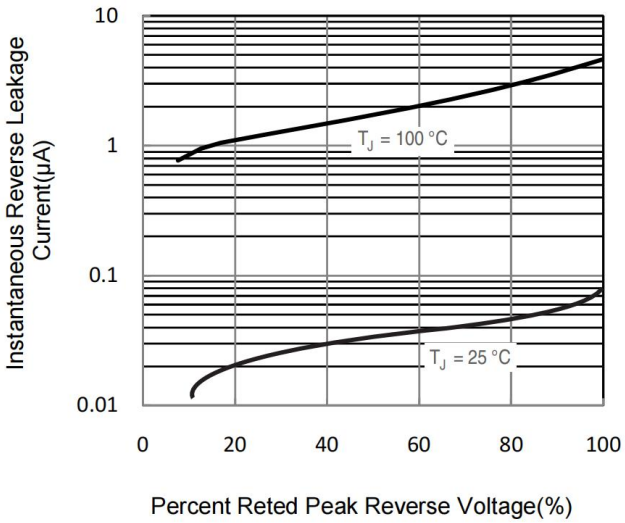
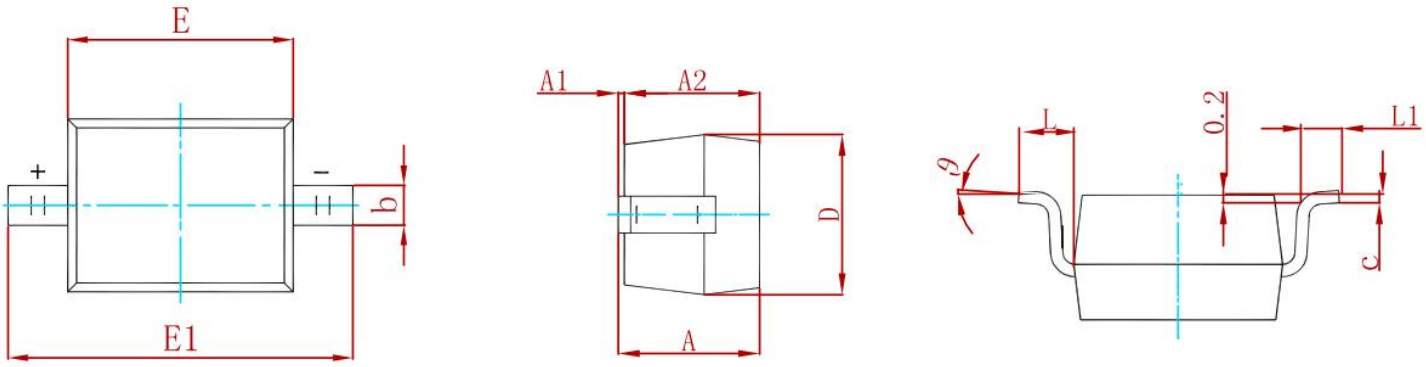


Fig.4 Typicl Reverse Leakage Characteristics

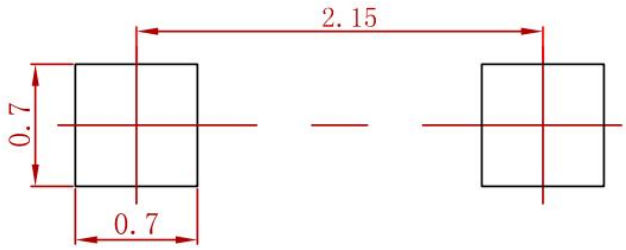


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min.	Max
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
C	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1.Controlling dimension:in millimeters.

2.General tolerance:±0.05mm.

3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
1N4001WS-1N4007WS	SOD-323	3000

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