1N4001W THRU 1N4007W

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V
Forward Current - 1 A

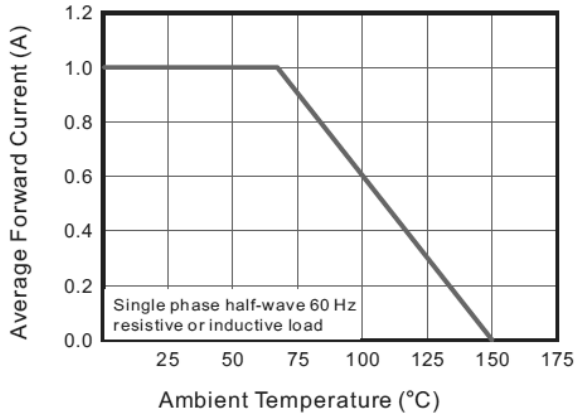
SOD-123FL

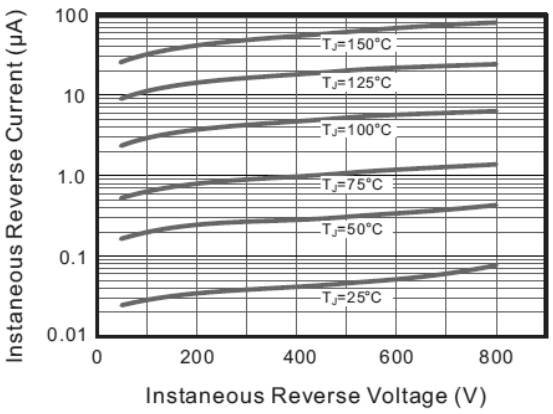
Maximum Ratings and Electrical characteristics

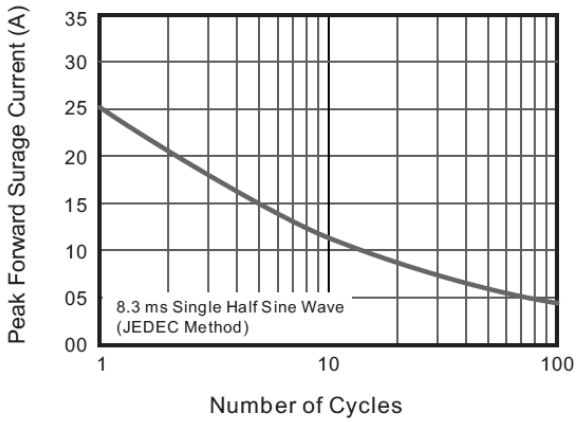
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

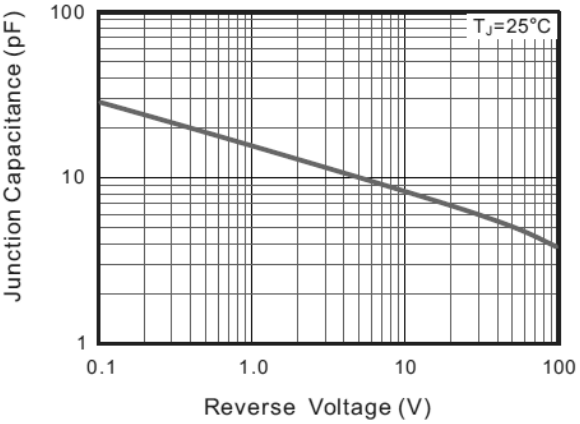
Parameter	Symbols	1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_a = 65 ℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current T_a = 25℃ at Rated DC Blocking Voltage T_a = 125℃	I_R	5 50							μA
Typical Junction Capacitance [1]	C_j	9							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	120							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							℃

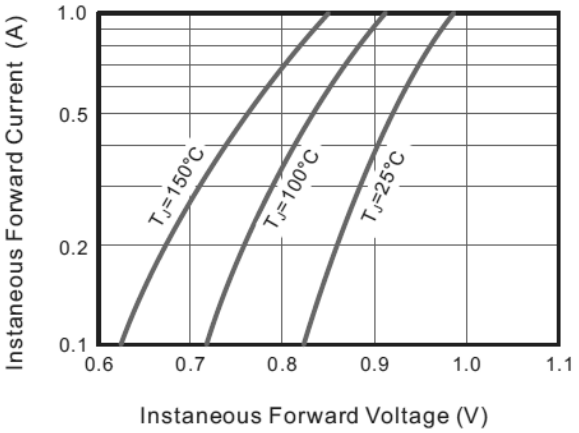
[1] Measured with I_F = 0.5 A, I_R = 1 A, Irr = 0.25 A.
[2] P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

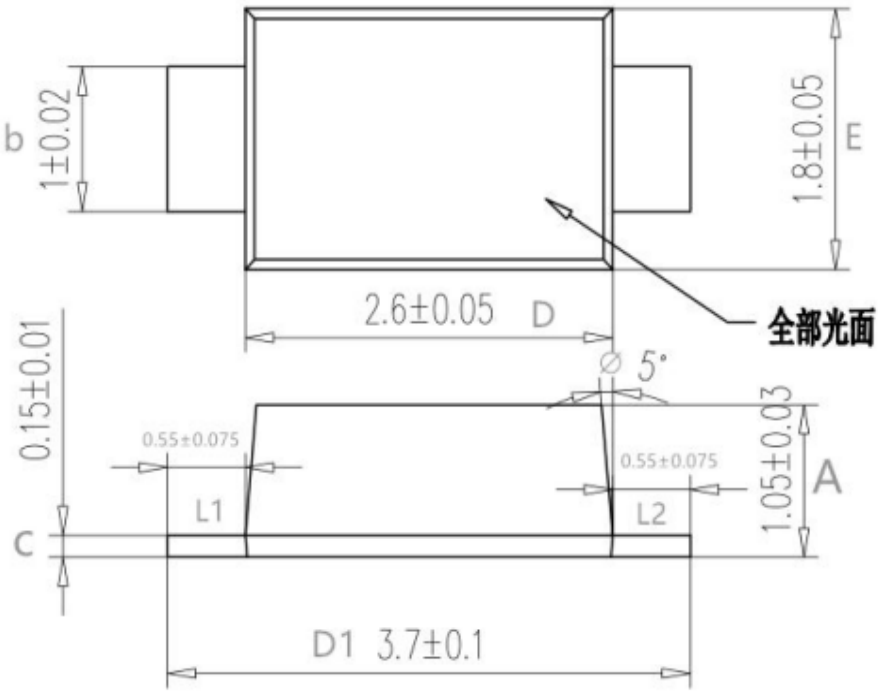

Average Forward Current (A)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Single phase half-wave 60 Hz
resistive or inductive load
25 50 75 100 125 150 175
Ambient Temperature (°C)


Instaneous Reverse Current (μA)
100
10
1.0
0.1
0.01
TJ=150°C
TJ=125°C
TJ=100°C
TJ=75°C
TJ=50°C
TJ=25°C
0 200 400 600 800
Instaneous Reverse Voltage (V)


Peak Forward Surage Current (A)
35
30
25
20
15
10
05
00
8.3 ms Single Half Sine Wave
(JEDEC Method)
1 10 100
Number of Cycles


Junction Capacitance (pF)
100
10
1
TJ=25°C
0.1 1.0 10 100
Reverse Voltage (V)


Instaneous Forward Current (A)
1.0
0.5
0.2
0.1
TJ=150°C
TJ=100°C
TJ=25°C
0.6 0.7 0.8 0.9 1.0 1.1
Instaneous Forward Voltage (V)



项目	公制（mm）	
	MIN	MAX
*A	1.02	1.08
*b	0.98	1.02
*c	0.14	0.16
*D	2.55	2.65
*D1	3.60	3.80
*E	1.75	1.85
*L1	0.475	0.625
*L2	0.475	0.625
Ø	4°	6°
带*为检验尺寸		