

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating							Unit
		1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	
Maximum Recurrent 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 $T_a=65$	$I_{F\ AV}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance ¹	C_j	8							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	90							/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							

Note:

1) Measured with $I_F=0.5A, I_R=1A, I_{rr}=0.25A$.

2) P.C.B. mounted with 0.2X0.2" (5X5mm) copper pad areas.

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Rating							Unit
			1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0A$	1.1							V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25$	5.0							μA
		$T_a=125$	50							μA

/ Electrical Characteristic Curve

Fig.1 Forward Current-Temperature Curve

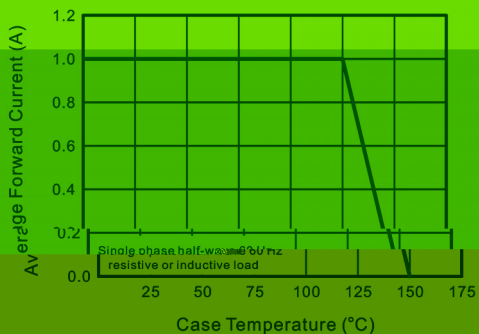


Fig.2 Typical Instantaneous Reverse Characteristics

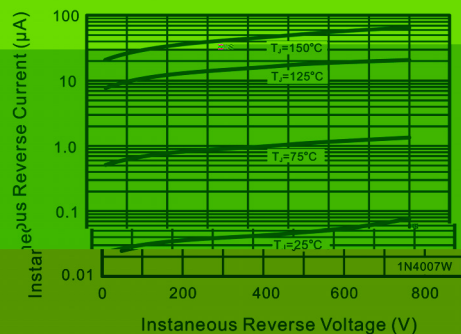


Fig.3 Typical Forward Characteristics

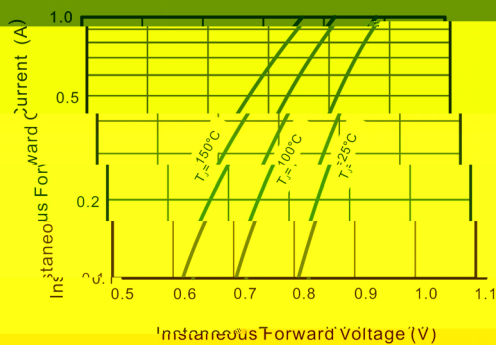


Fig.4 Typical Junction Capacitance

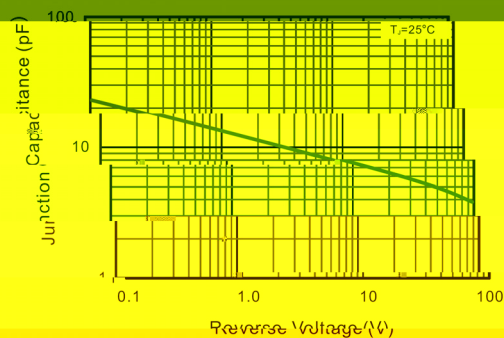
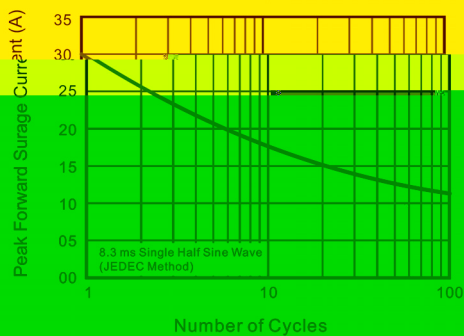
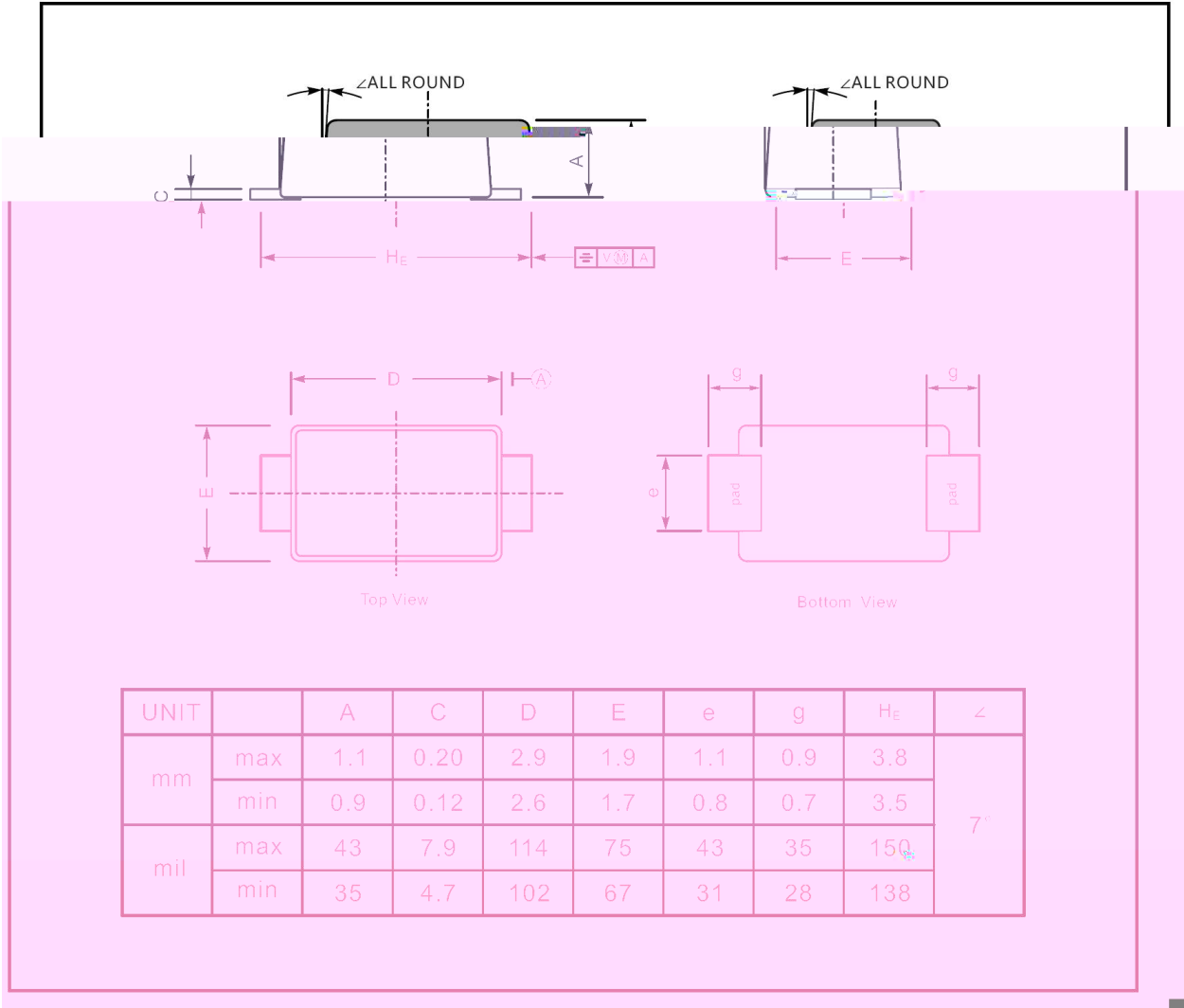


Fig.5 Maximum Allowable Repetitive Peak Forward Surge Current



/ Package Dimensions

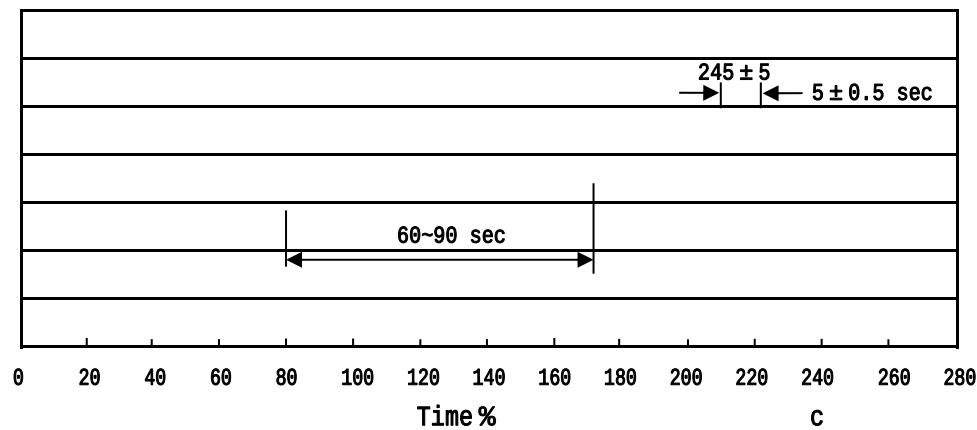
SOD-123FL



1N4001W~1N4007W

Rev.F May.-2024

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOD-123FL	3,000	8	24,000	6	144,000	7 ×8	185×180×105	390×385×205

/ Notices