

■ Features

- Low power loss, high efficiency
- High current capability
- Low forward voltage drop
- High Surge Capability

SOD-123



1 Cathode
2 Anode



■ Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	1N5817W	1N5818W	1N5819W	Unit
Peak Repetitive Reverse Voltage	VRRM	20	30	40	V
RMS Voltage	VRMS	14	21	28	
DC Blocking Voltage	VDC	20	30	40	
Forward Voltage @ IF=1A	VF	0.45	0.55	0.6	
Forward Voltage @ IF=3.1A		0.75	0.875	0.9	
Average Forward Rectified Current @ TL=90℃	IFAV	1			A
Non-Repetitive Peak Forward Surge Current @8.3ms	IFSM	25			
Reverse Voltage Leakage Current Ta = 25℃ Ta = 100℃	IR	1			mA
		10			
Typical Junction Capacitance	CJ	110			pF
Junction Temperature	TJ	125			℃
Storage Temperature range	Tstg	-55 to 125			

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

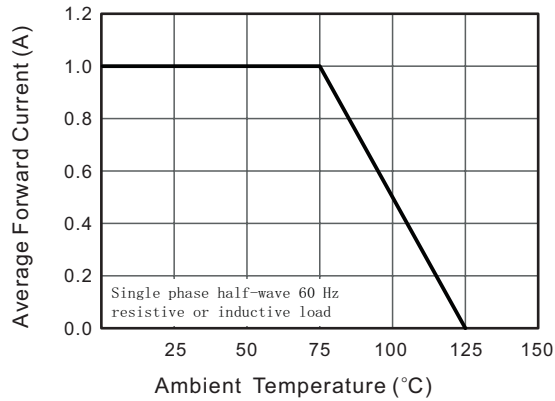


Fig.2 Typical Reverse Characteristics

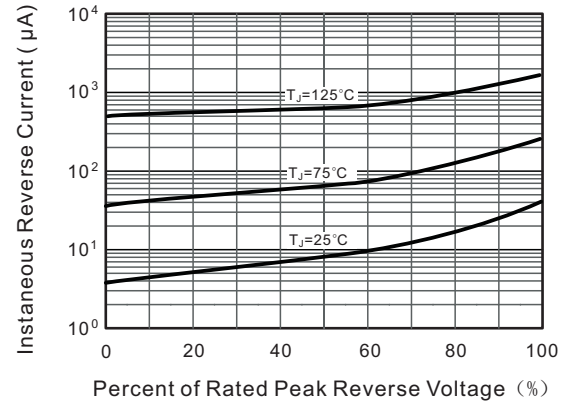


Fig.3 Typical Forward Characteristic

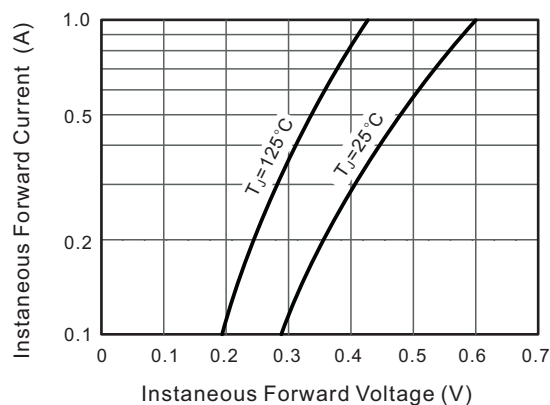


Fig.4 Typical Junction Capacitance

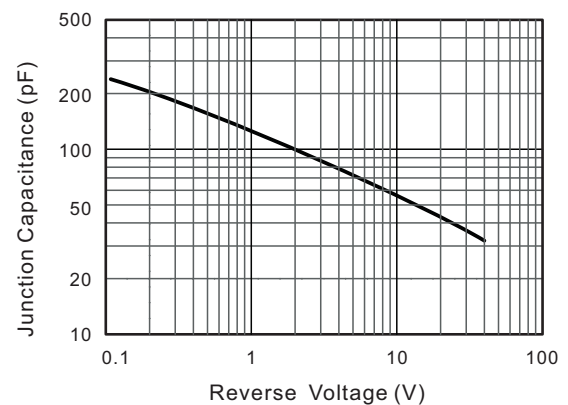


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

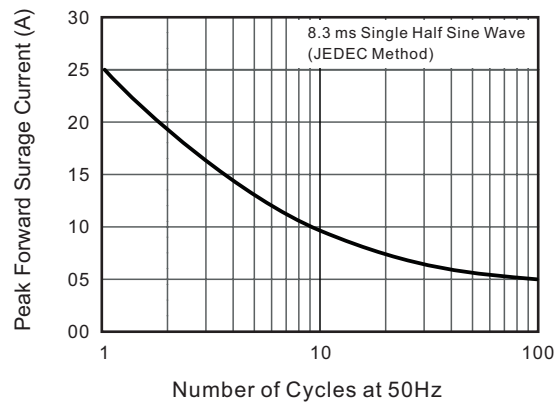
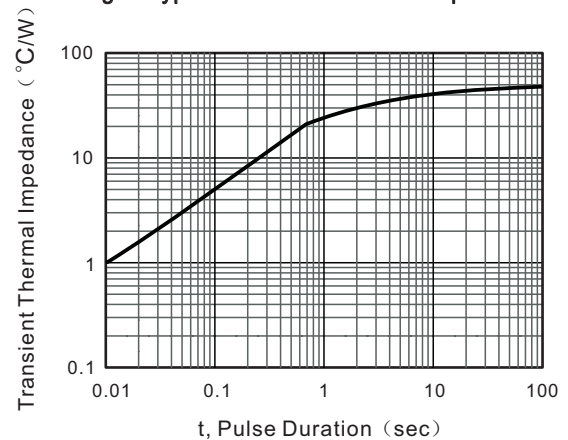


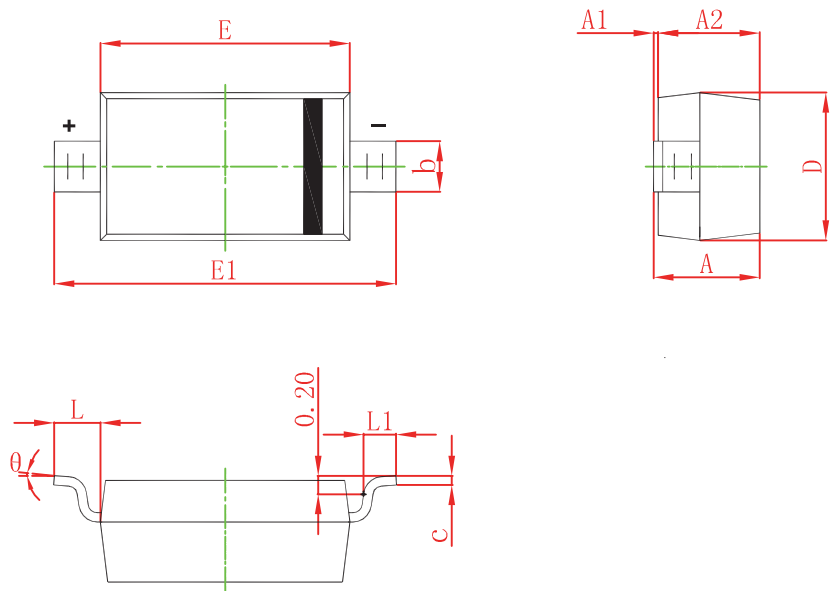
Fig.6- Typical Transient Thermal Impedance



Package Outline Dimensions

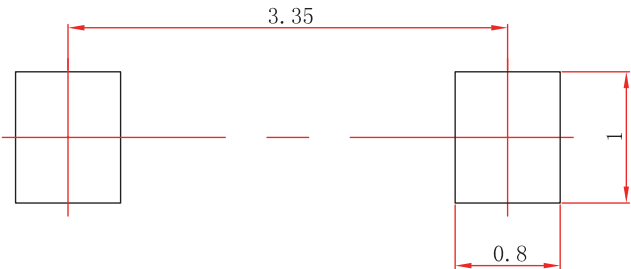
Plastic surface mounted package; 2 leads

SOD-123



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

The Recommended Mounting Pad Size



- Note:**
- 1.Controlling dimension in millimeters.
 - 2.General tolerance: ±0.05mm.
 - 3.The pad layout is for reference purposes only.