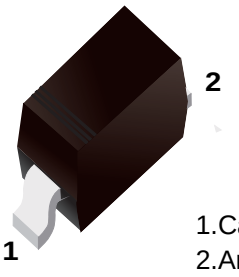
1N4007W

General Purpose Rectifier Applications



1.Cathode
2.Anode

■ Simplified outline(SOD-123)

Top View

■ Features

- Fast Switching Speed
- For General Purpose Switching Applications.
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

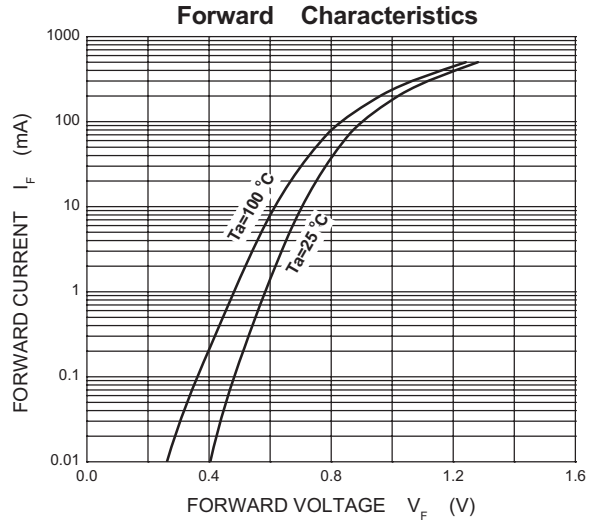
■ Absolute Maximum Ratings Ta = 25℃

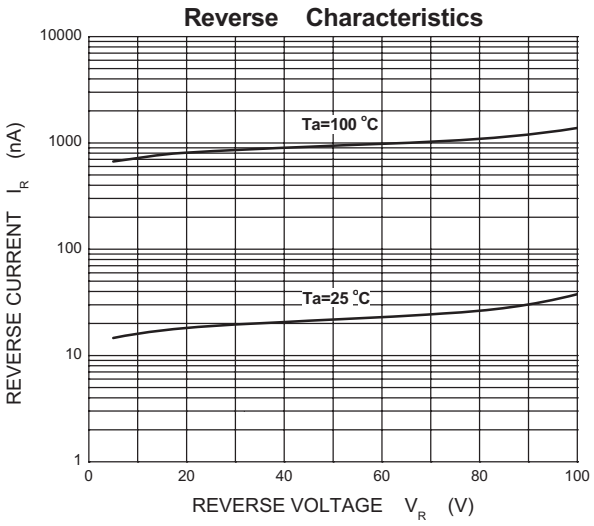
Parameter	Symbol	Rating	Unit
Reverse Voltage	V_{RM}	300	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	300	
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	71	
Average Rectified Output Current	I_O	300	mA
Forward Continuous Current	I_{FM}	400	
Peak Forward Surge Current @ t=1us	I_{FSM}	2	A
@ t =1s		1	
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

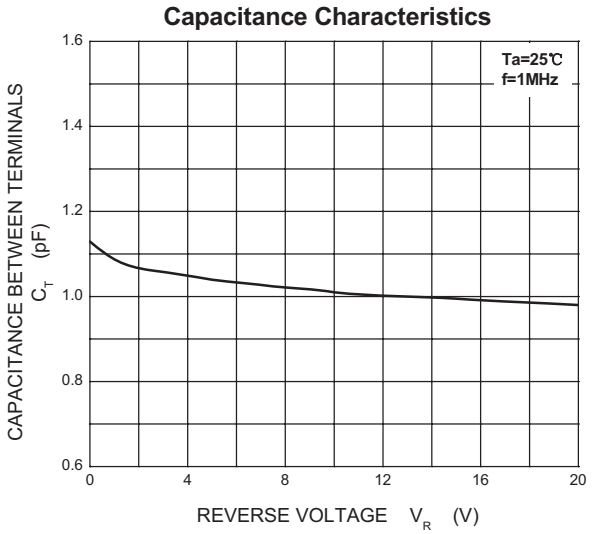
■ Electrical Characteristics Ta = 25℃

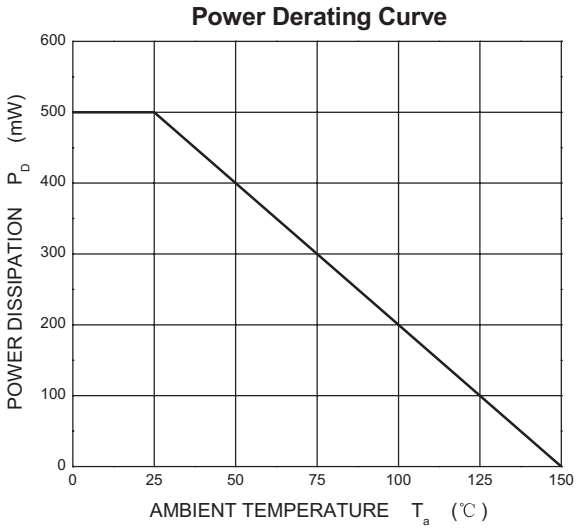
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 100 uA	100			V
Forward voltage	V_{F1}	I_F= 1mA			0.715	
	V_{F2}	I_F= 10 mA			0.855	
	V_{F3}	I_F= 50 mA			1	
	V_{F4}	I_F= 150 mA			1.25	
Reverse voltage leakage current	I_{R1}	V_R= 75 V			1	uA
	I_{R2}	V_R=20 V			25	nA
Junction capacitance	C_j	V_R= 0 V, f= 1 MHz			2	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA,Irr=0.1xI_R, R_L=100Ω			4	ns

■ Typical Characterisitics

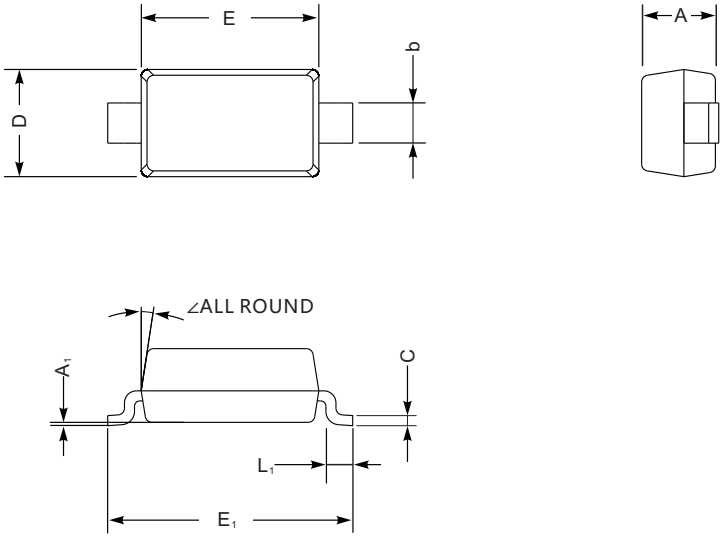








■ SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E_1	L_1	b	A_1	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

■ The recommended mounting pad size