Rectifier Diodes

Pinning

1.Cathode	2.Anode

SOD-323

Marking Code	
1N4007WS	T7

FEATURES

- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg /0.00019oz

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4007WS	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	140	V
Maximum RMS voltage	V_{RMS}	100	V
Continuous Forward Current	$I_{F(AV)}$	250	mA
Non-reptitive Peak Forward Surge Current at 1s at 1ms at 1us	I_{FSM}	0.5 1 4	A
Total Power Dissipation	P_{tot}	500	mW
Typical Thermal Resistance (1)	$R_{\theta JA}$ $R_{\theta JC}$	340 120	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 5*5mm copper pad areas.

Characteristics at Ta = 25 °C

Parameter		Symbols	1N4007WS	Units
Reverse BreakdownVoltage at I_R=1μA		$V_{(BR)R}$	100	V
Maximum Forward Voltage	at 1 mA	V_F	0.715	V
	at 10 mA		0.855	
	at 50 mA		1.00	
	at 150 mA		1.25	
Peak Reverse Current	at V_R=20V T_j=25°C	I_R	0.025	uA
	at V_R=100vT_j=25°C		1	
	at V_R=25V T_j=150°C		30	
	at V_R=100vT_j=150°C		50	
Typical Junction Capacitance	f=1MHz,V_R=0V	C_j	2	pF
Maximum Reverse Recovery Time (2)		T_{rr}	4	nS

(2) Measured with I_F=I_R=10mA,Irr=0.1xIR,R_L=100Ω

Fig.1 Power Derating Curve

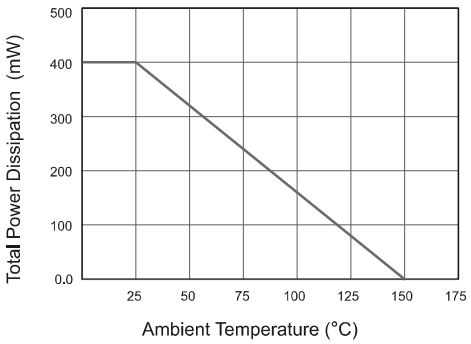


Fig.2 Typical Reverse Characteristics

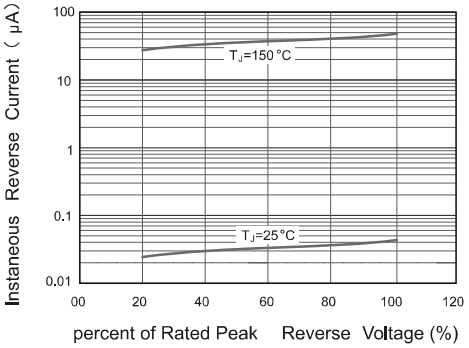


Fig.3 Typical Instaneous Forward Characteristics

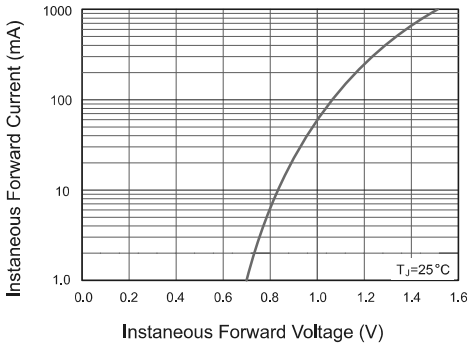
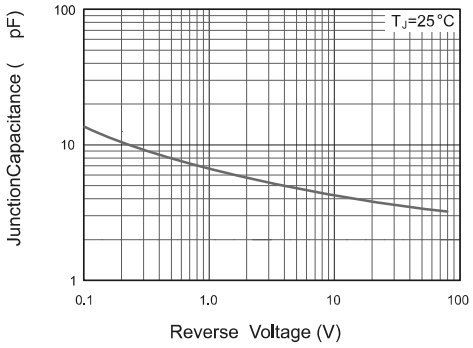


Fig.4 Typical Junction Capacitance

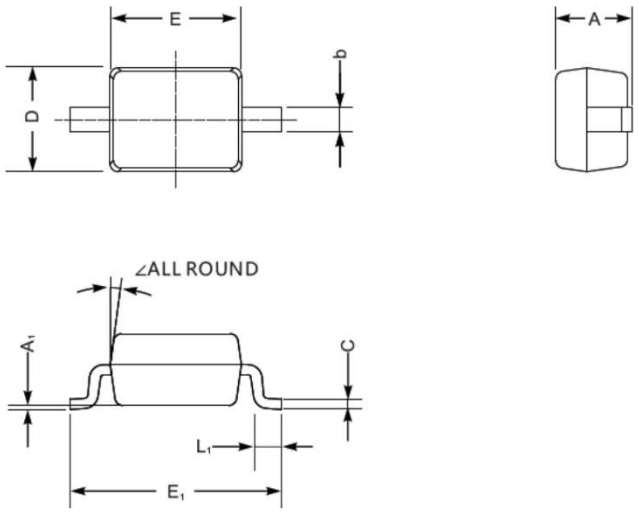


Ordering information

Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

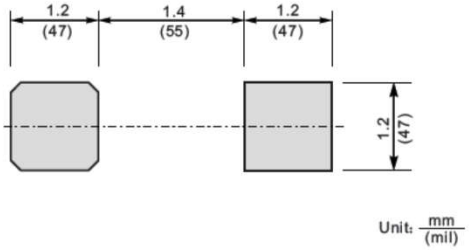
Package Dimensions

SOD-323



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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