

1A, 50~1000V Surface Mount Glass Passivated Standard Rectifier

1. Features

- T Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Lead free in comply with EU RoHS 2011/65/EU directives

2. Mechanical Data

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

3. Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load.

Characteristics		Symbol	1N4001 WS	1N4002 WS	1N4003 WS	1N4004 WS	1N4005 WS	1N4006 WS	1N4007 WS	Unit
Marking Code			T1	T2	T3	T4	T5	T6	T7	
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 TA=100°C		I _{F(AV)}	1.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)		I _{FSM}	25							A
Peak Forward Voltage per bridge element at 1.0A		V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode	T _A =25°C	I _R	5							μA
	T _A =125°C		50							
Typical Junction capacitance (Note 2)		C _J	5							pF
Typical Junction Resistance (Note 3)		R _{θJA}	55							°C/W
Operating Junction Temperature Range		T _J	-55 to +150							°C
Storage Temperature Range		T _{STG}	-55 to +150							°C

NOTES:

- (1) The typical data above is for reference only.
- (2) Measured at 1 MHz and applied reverse voltage of 4 V D.C
- (3) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

4. Typical Characteristic

Fig.1 Forward Current Derating Curve

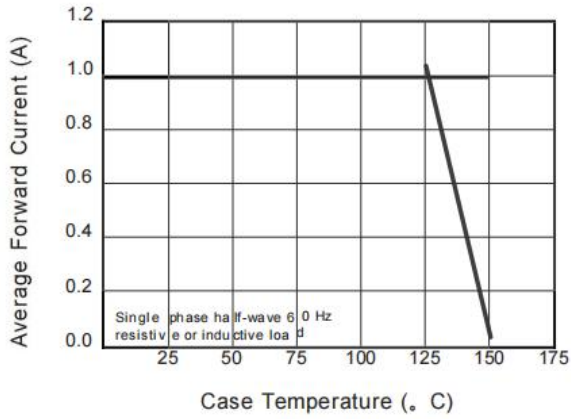


Fig.2 Typical Instantaneous Reverse Characteristics

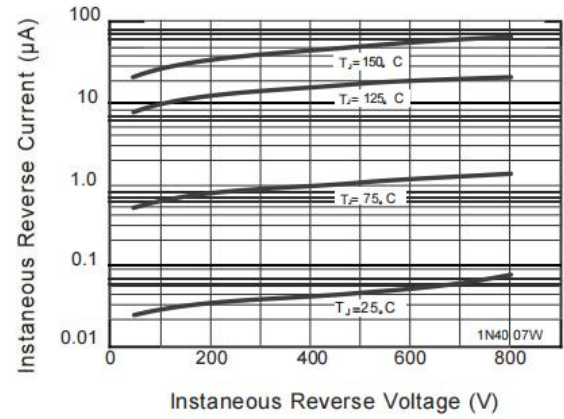


Fig.3 Typical Forward Characteristic

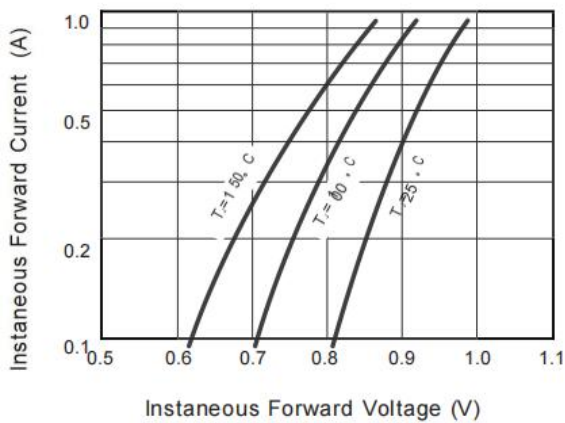


Fig.4 Typical Junction Capacitance

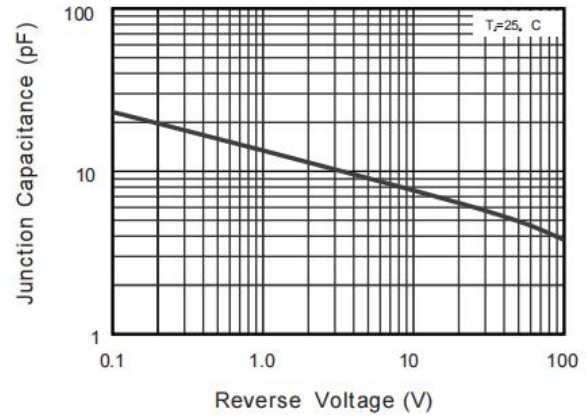
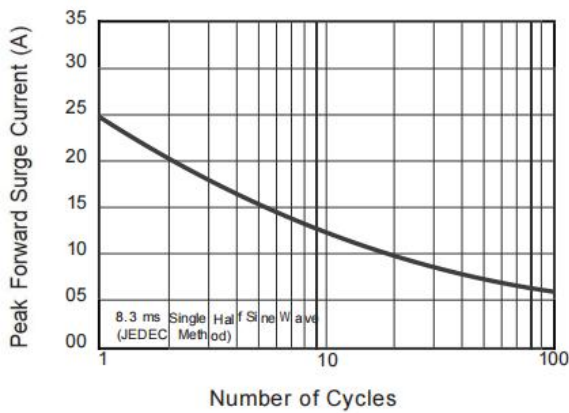
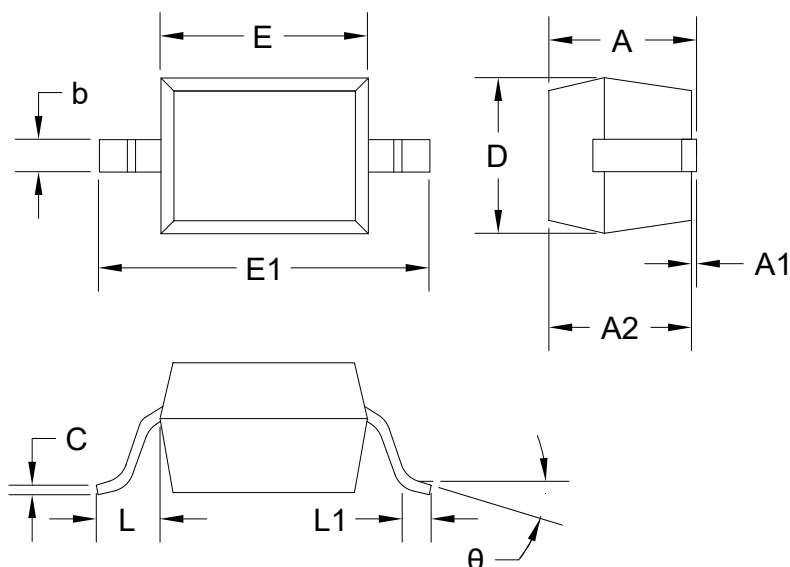


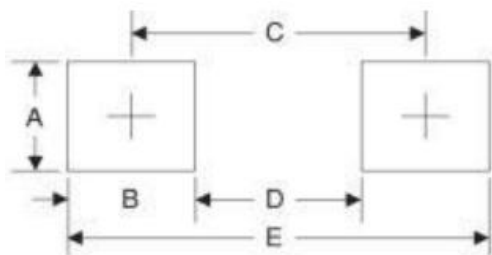
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



5. Dimension (SOD-323)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
C	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	2.6	0.102
D	1.4	0.055
E	3.8	0.149

DISCLAIMER

Notice

1. All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. The right to explain is owned by CCX electronics company.
2. Confirm that operation temperature is within the specified range described in the product specification.

Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
3. CCX shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.