RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

1N4001W THRU 1N4007W

SURFACE MOUNT
GENERAL PURPOSE SILICON RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES
* Glass passivated device
* Ideal for surface mounted applications
* Low leakage current
* Metallurgically bonded construction
* Mounting position: Any
* P/N suffix V means AEC-Q101 qualified, e.g:1N4001WV
* P/N suffix V means Halogen-free

MECHANICAL DATA
* Epoxy : Device has UL flammability classification 94V-0
* Terminals: Solderable per MIL-STD-750, Method 2026

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Marking Code : A1-A7
Simplified outline SOD-123F(L) and symbol

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at Ambient Temperature	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Current Squarad Time	I^2t	3.7							A^2/Sec
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	90							°C/W
Typical Junction Capacitance (Note 2)	C_J	8							pF
Operating Temperature Range	T_J	-55 to + 150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	1.1							Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	5.0							uA
at Rated DC Blocking Voltage	@T_A = 150°C		1.0							mA

NOTES : 1. Thermal Resistance :Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2020-01
REV:C

RATING AND CHARACTERISTICS CURVES (1N4001W THRU 1N4007W)

Fig.1 Forward Current Derating Curve

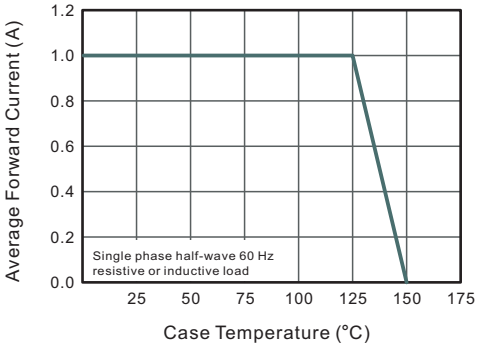


Fig.2 Typical Instaneous Reverse Characteristics

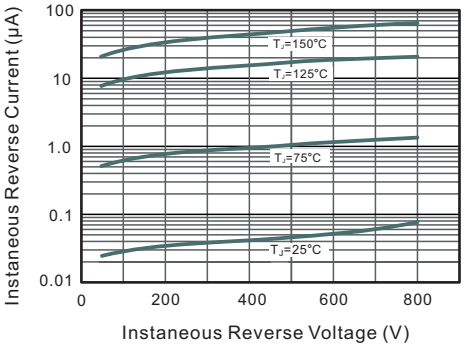


Fig.3 Typical Forward Characteristic

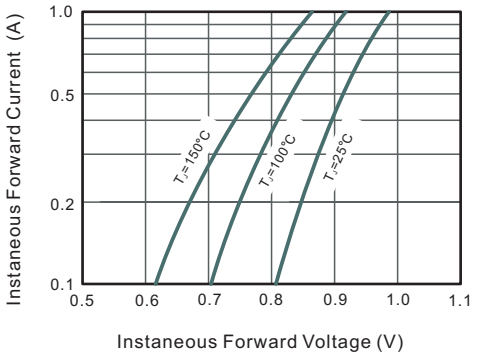


Fig.4 Typical Junction Capacitance

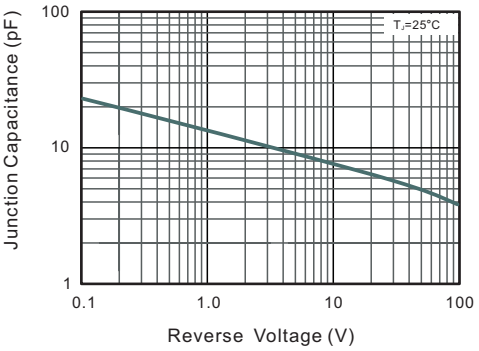
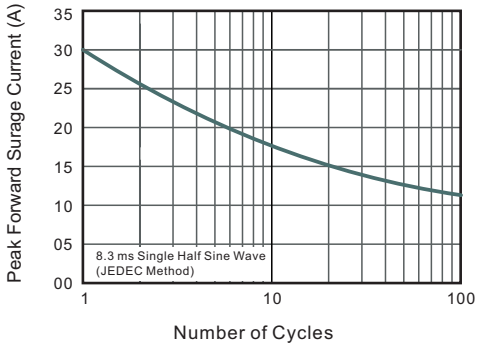
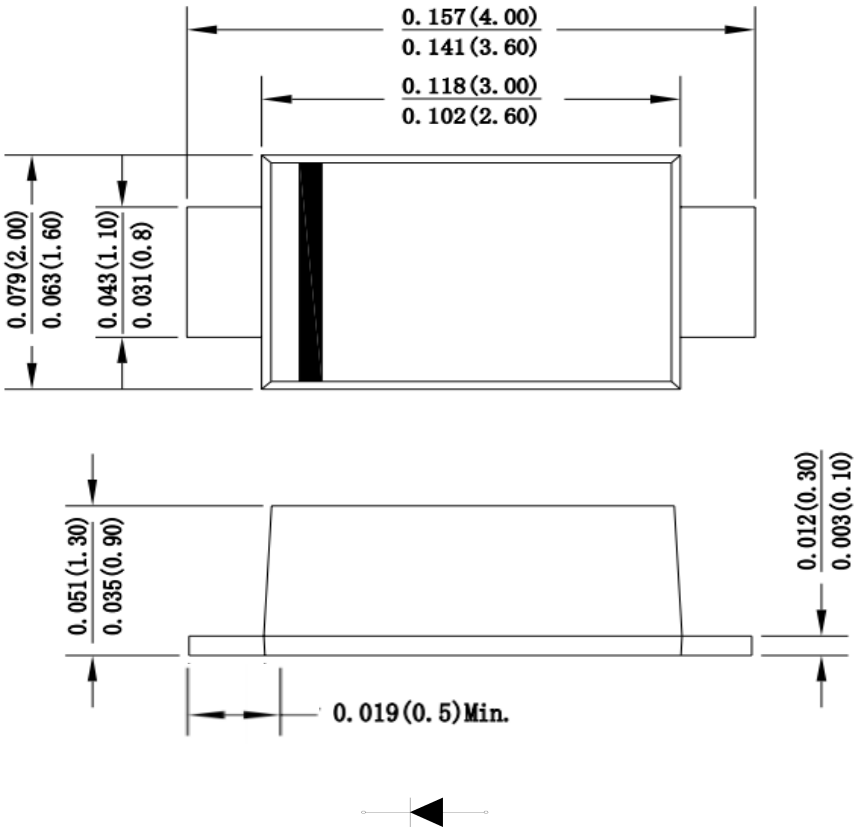


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



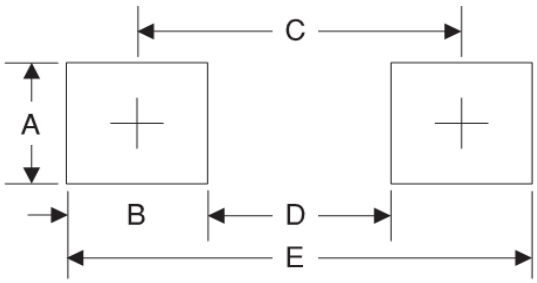
PACKAGE OUTLINE

SOD-123F(L)



Dimensions in inches and (millimeters)

The recommended mounting pad size



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.048
B	1.15	0.045
C	3.10	0.122
D	1.95	0.077
E	4.25	0.167

Marking

Type number	Marking code
1N4001W	A1
1N4002W	A2
1N4003W	A3
1N4004W	A4
1N4005W	A5
1N4006W	A6
1N4007W	A7

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F(L)	-W/T	3,000	15,000	---	---	178	390*205*310	120,000	6.964

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