RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

1N5817WV THRU 1N5819WV

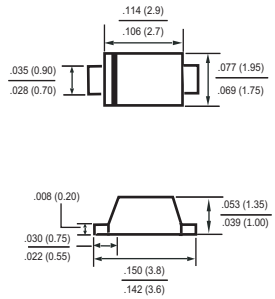
SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere

FEATURES

* Metal silicon junction, majority carrier conduction
* Guarding for overvoltage protection
* High current capability
* Low power loss, high efficiency
* High surge capability
* For use in low voltage, high frequency inverters,free wheeling, and polarity protection applications
* P/N suffix V means AEC-Q101 qualified, eg:1N5817WV
* P/N suffix V means Halogen-free

SOD-123F



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	1N5817W	1N5818W	1N5819W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T_L = 90°C	$I_{F(AV)}$	1			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) at TL = 70°C	I_{FSM}	25			A
Typical Current Squared Time	I^2T	2.59			A^2S
Maximum Instantaneous Forward Voltage at 1 A Maximum Instantaneous Forward Voltage at 3.1 A	V_F	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at TA = 25°C Rated DC Reverse Voltage TA = 150°C	I_R	1 20			mA
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	50 15			°C/W
Typical Junction Capacitance	C_j	110			pF
Storage and Operating Junction Temperature Range	T_j, T_{stg}	-55 ~ +125			°C

2020-11
REV:O

RATING AND CHARACTERISTICS CURVES (1N5817WV THRU 1N5819WV)

Fig.1 Forward Current Derating Curve

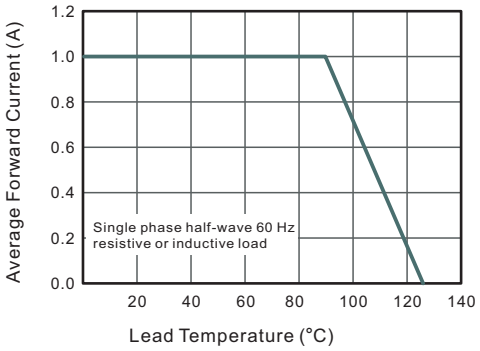


Fig.2 Typical Reverse Characteristics

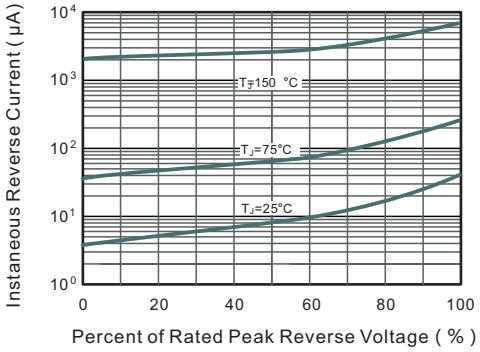


Fig.3 Typical Forward Characteristic

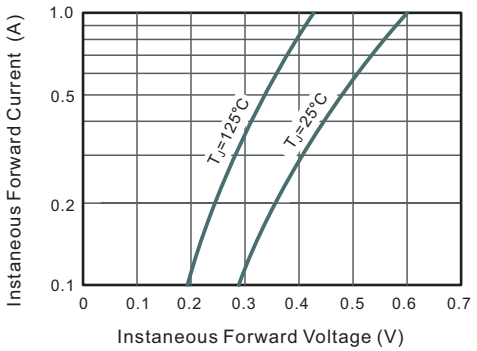


Fig.4 Typical Junction Capacitance

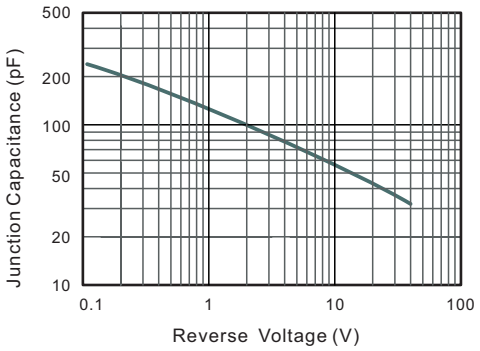


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

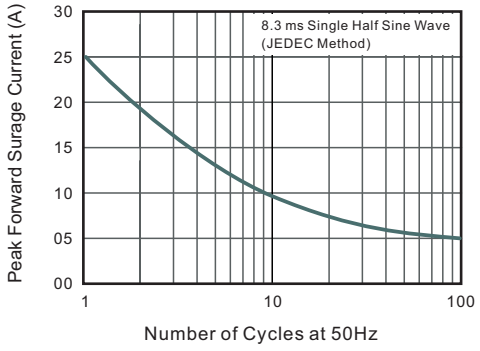
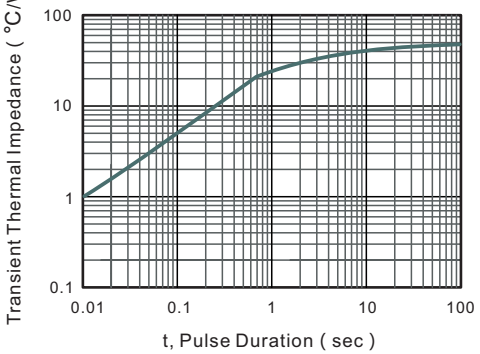
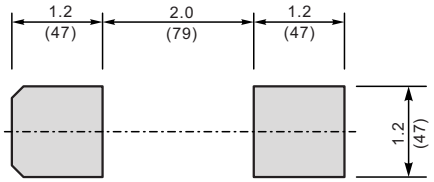


Fig.6- Typical Transient Thermal Impedance



The recommended mounting pad size



Unit: $\frac{mm}{(mil)}$

Marking

Type number	Marking code
1N5817W	12A
1N5818W	13A
1N5819W	14A

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/ SOD-123FL	-W	3,000	15,000	---	---	178	390*205*31	120,000	6.964

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.