

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over-voltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



SOD-323FL



RoHS
COMPLIANT

Mechanical Data

- Case: SOD-323FL molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.)

Parameters	Symbols	G1N5817WS	G1N5818WS	G1N5819WS	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	$I_{(AV)}$	1.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25.0			A
Maximum Instantaneous Forward Voltage at 1.0 A ¹	V_F	0.450	0.550	0.600	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	0.1			mA
	$T_A=100^\circ\text{C}$	10			
Typical Thermal Resistance, Junction to Lead ²	$R_{\theta JL}$	35			°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150			°C

Notes:

1. Pulse test: 300µs pulse width, 1% duty cycle.
2. Mounted on PCB with 0.2x0.2" (5.0x5.0mm) copper pads.

G1N5817WS thru G1N5819WS

Schottky Barrier Rectifiers

Reverse Voltage 20V to 40V Forward Current 1A

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

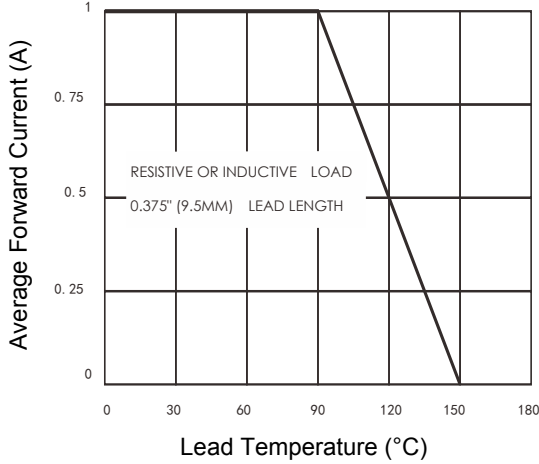


Figure 1. Forward Current Derating Curve

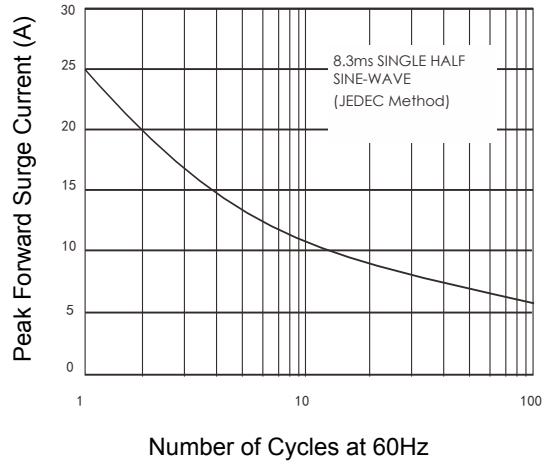


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

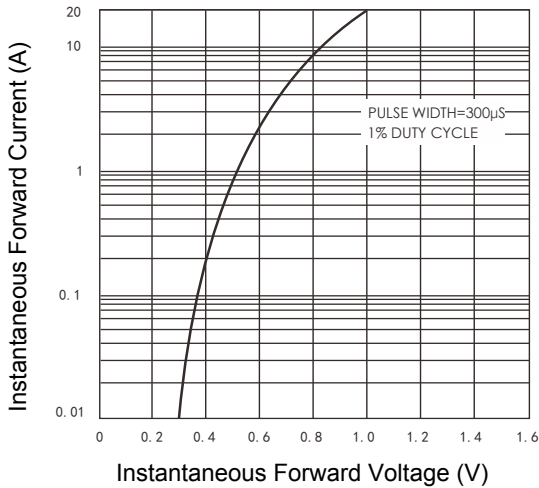


Figure 3. Typical Instantaneous Forward Characteristics

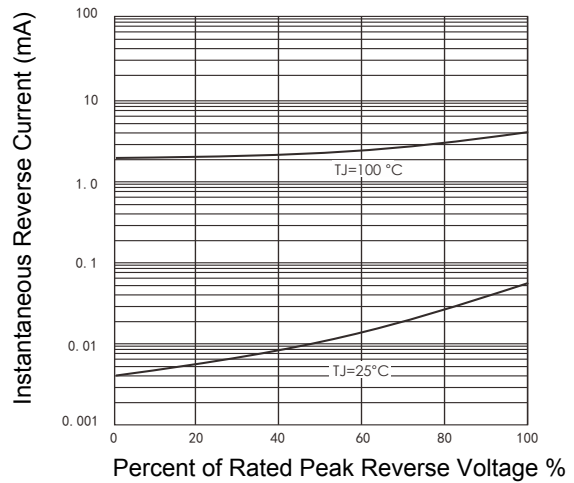


Figure 4. Typical Reverse Characteristics

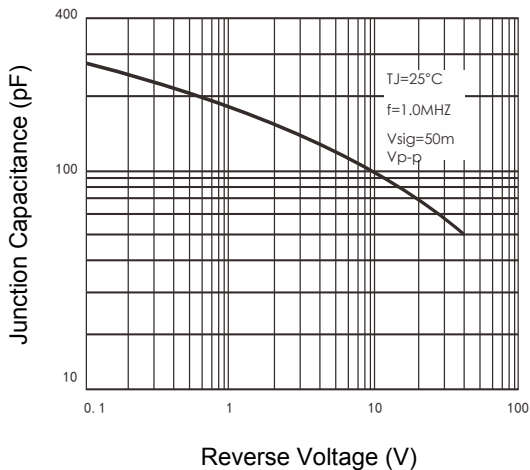


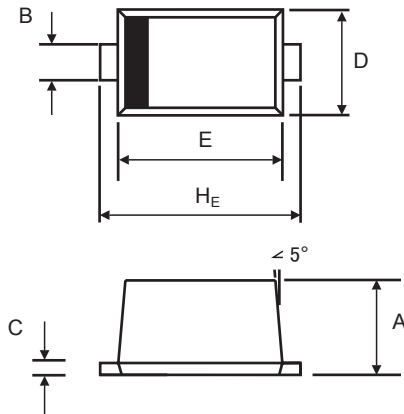
Figure 5. Typical Junction Capacitance

G1N5817WS thru G1N5819WS

Schottky Barrier Rectifiers

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Package Outline Dimensions (SOD-323FL)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.60	0.75	0.024	0.030
B	0.25	0.40	0.010	0.016
C	-	0.15	-	0.006
D	1.15	1.35	0.045	0.053
E	1.60	1.80	0.063	0.071
HE	2.30	2.80	0.091	0.110

Order Information

Device	Package	Marking	Carrier	Quantity
G1N5817WS	SOD-323FL	1N5817WS	Tape & Reel	3,000pcs / Reel
G1N5818WS	SOD-323FL	1N5818WS	Tape & Reel	3,000pcs / Reel
G1N5819WS	SOD-323FL	1N5819WS	Tape & Reel	3,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com