

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°C	I _R	0.1			mA
	T _A =100°C		10			
Typical Thermal Resistance, Junction to Lead ²		R _{θJL}	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.

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

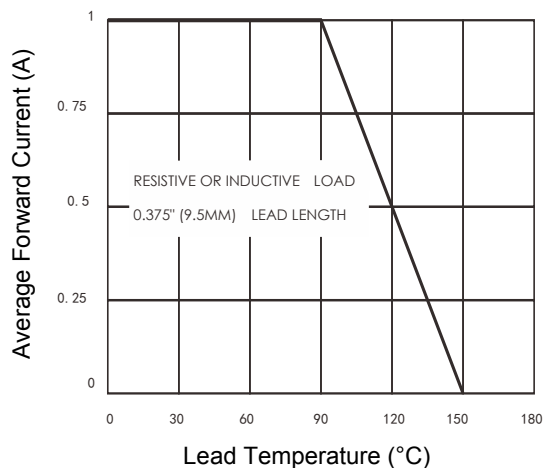


Figure 1. Forward Current Derating Curve

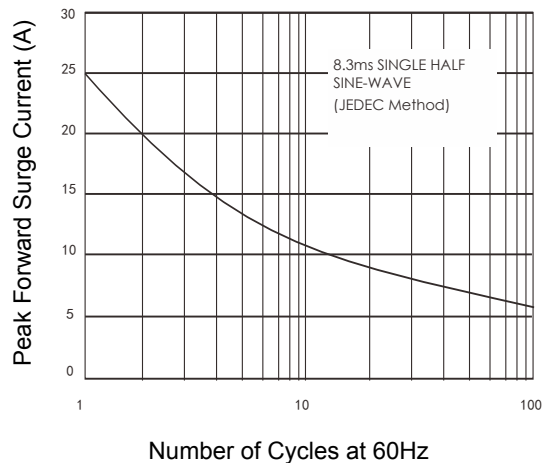


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

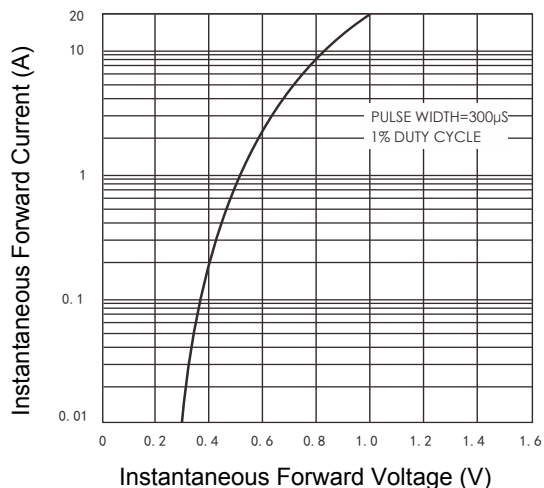


Figure 3. Typical Instantaneous Forward Characteristics

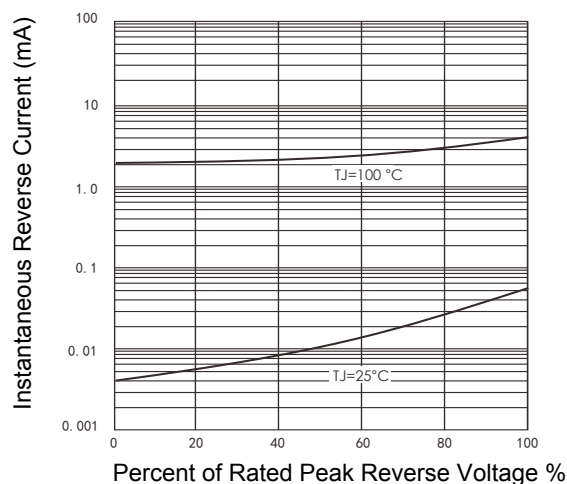


Figure 4. Typical Reverse Characteristics

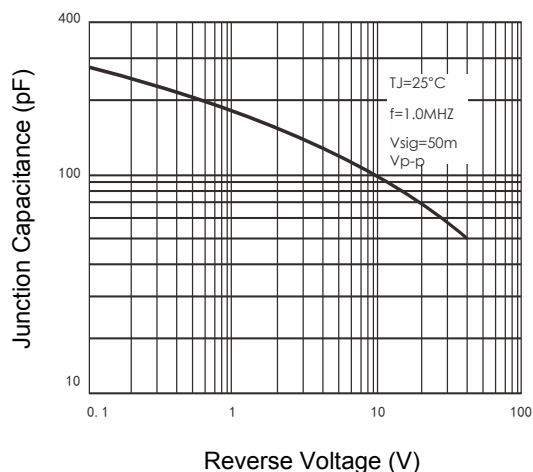


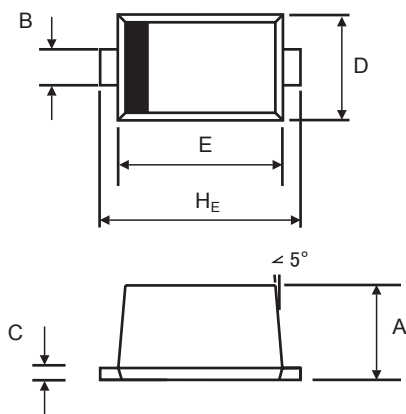
Figure 5. Typical Junction Capacitance

G1N5817WS thru G1N5819WS

Schottky Barrier Rectifiers

Reverse Voltage 20V to 40V Forward Current 1A

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	SJ	Tape & Reel	3,000pcs / Reel
G1N5818WS	SOD-323FL	SK	Tape & Reel	3,000pcs / Reel
G1N5819WS	SOD-323FL	SL	Tape & Reel	3,000pcs / Reel

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