

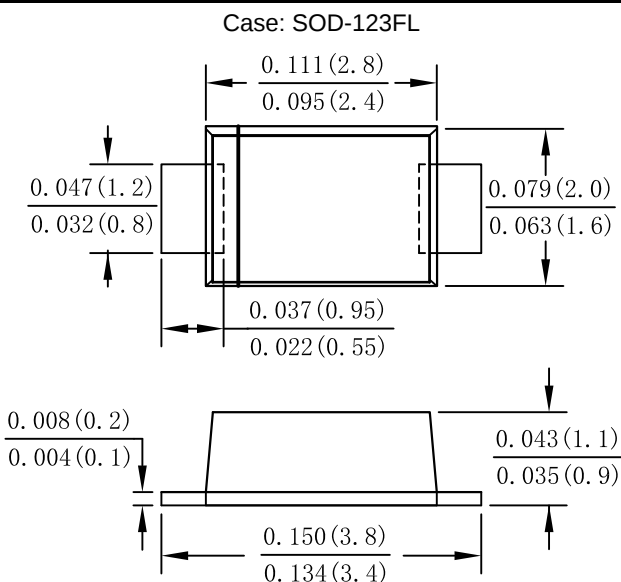
Single Phase 1.0AMP Surface Mount Schottky Barrier Rectifier

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High temperature soldering guaranteed:
260 °C/10 seconds, 0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	1N5819W	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_{DC}		
RMS Reverse Voltage	V_{RMS}	28	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	1.0	A
Non-Repetitive Peak Forward Surge @ $T_j = 25^\circ C$ Current 8.3ms Single half sine-wave @ $T_j = 125^\circ C$ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	30 24	A
Non-Repetitive Peak Forward Surge @ $T_j = 25^\circ C$ Current 1.0ms Single half sine-wave @ $T_j = 125^\circ C$ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	60 48	A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I_{FSM}	22.5	A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	3.735	A ² s
Forward Voltage per element @ $I_F = 1.0A$	V_{FM}	0.55	V
	T_{yp}	0.50	
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$	I_R	0.1	mA
		10	
Typical Junction Capacitance (Note 1)	C_J	35	pF
Typical Thermal Resistance	$R_{\theta JA}$	65	°C/W
Operating junction temperature range	T_J, T_{STG}	-55to+150	°C

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Typical Forward Current Derating Curve

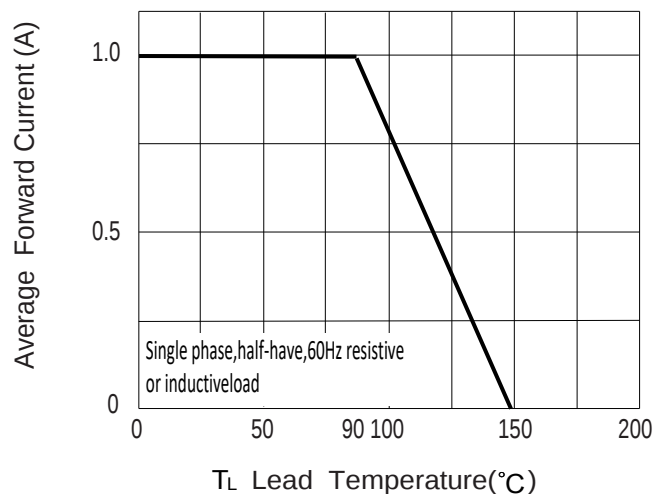


Fig. 2 Typical Instantaneous Forward Characteristics

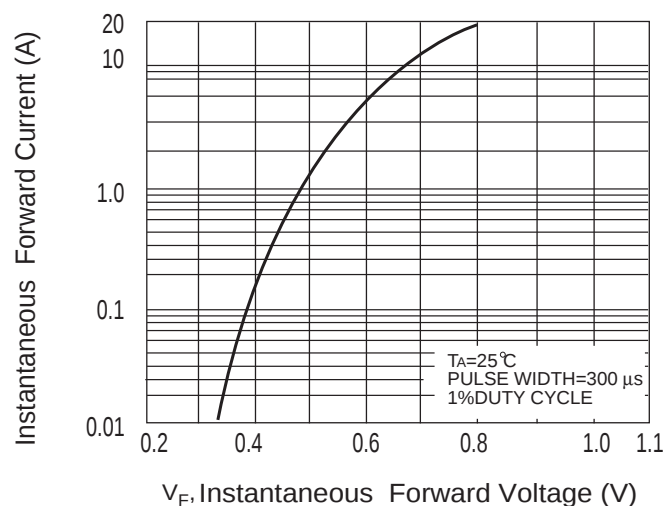


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

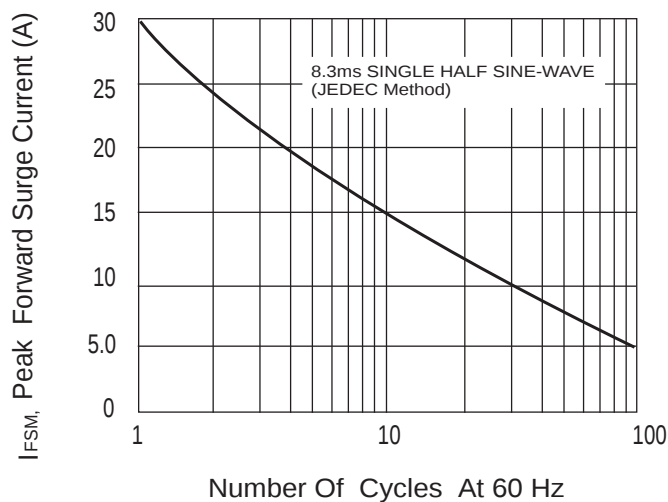


Fig.4 Typical Reverse Characteristics

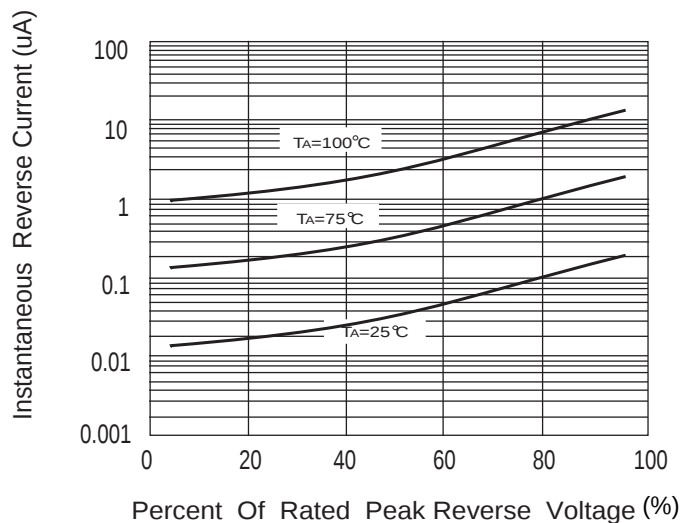


Fig.5 Typical Capacitance

