

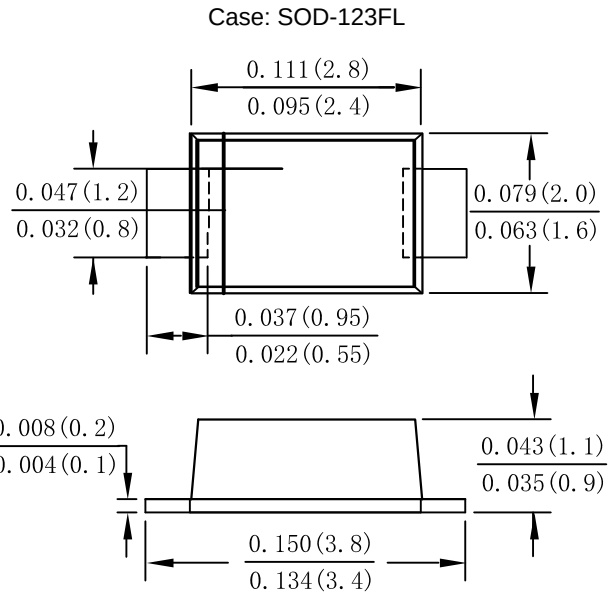
Single Phase 1.0AMP Surface Mount Schottky Barrier Rectifier

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	DS K12	DS K13	DS K14	DS K15	DS K16	DS K18	DS K110	DS K115	DS K120	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
	V _{RWM}										
	V _{DC}										
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @T _L =90℃	I _{F(AV)}	1.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed On Rated Load (JEDEC Method) @T _j =25℃ @T _j =125℃	I _{FSM}	30 24									A
Non-Repetitive Peak Forward Surge Current 1.0ms Single half sine-wave Superimposed On Rated Load (JEDEC Method) @T _j =25℃ @T _j =125℃	I _{FSM}	60 48									A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I _{FSM}	22.5									A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735									A ² s
Forward Voltage per element @IF=1.0A	V _{FM}	0.55			0.70		0.85		0.92		V
	T _{yp}	0.50			0.64		0.82		0.87		
Peak Reverse Current At Rated DC Blocking Voltage @T _A =25℃ @T _A =100℃	I _R	0.1					0.05				mA
		10					5				
Typical Junction Capacitance (Note 1)	C _J	35					25				pF
Typical Thermal Resistance	R _{θJA}	65									℃/W
Operating junction temperature range	T _J , T _{STG}	-55to+150									℃

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

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Fig. 1 Typical Forward Current Derating Curve

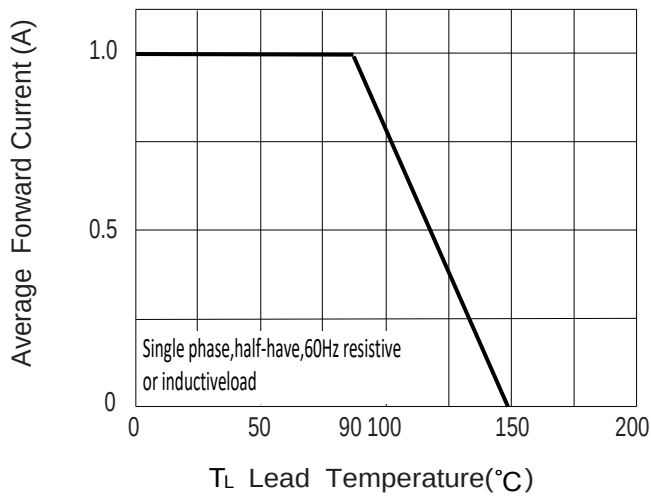


Fig. 2 Typical Instantaneous Forward Characteristics

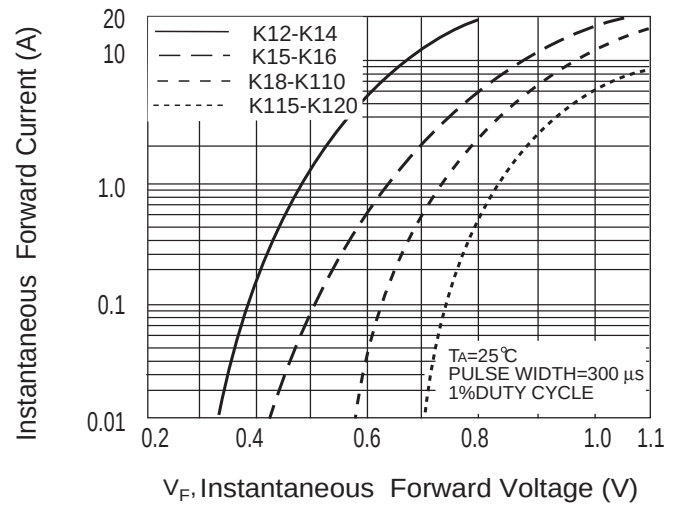


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

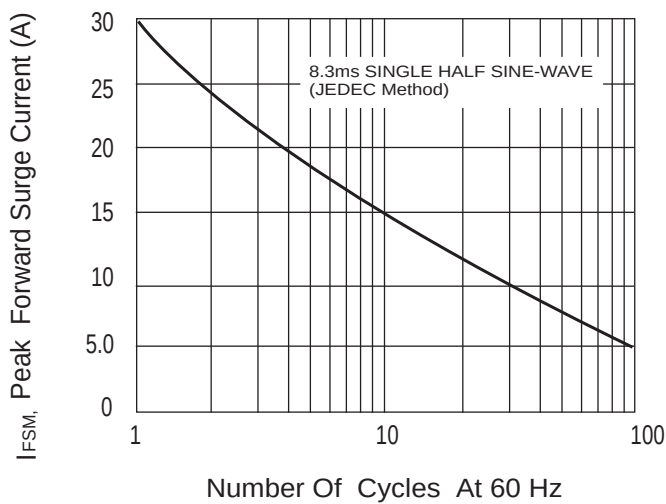


Fig.4 Typical Reverse Characteristics

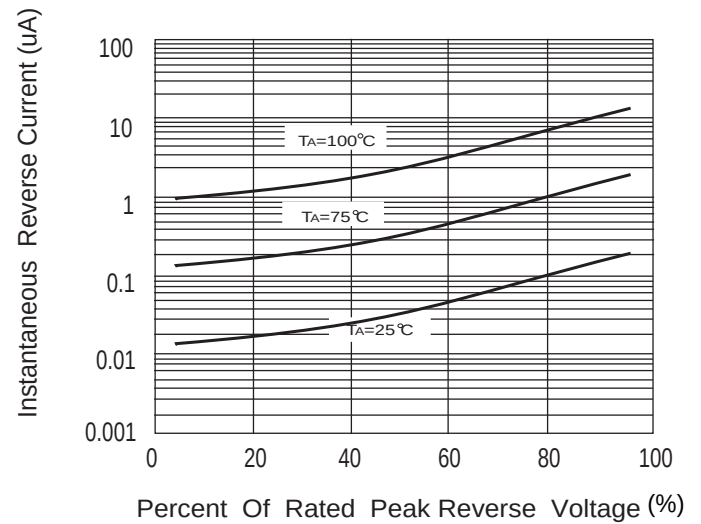


Fig.5 Typical Capacitance

