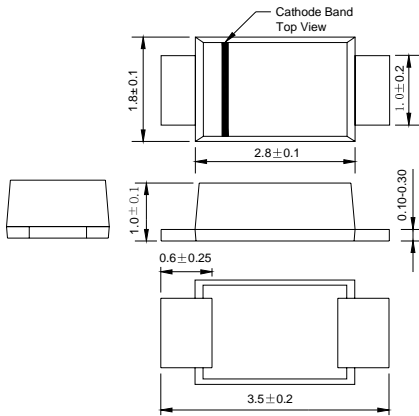




**SURFACE MOUNT HIGH EFFICIENCY RECTIFIER**

Reverse Voltage - 50 to 1000 Volts Forward Current -1.0 Ampere

**SOD-123F**



Dimensions in millimeters

**FEATURES**

- ◆ Glass passivated device
- ◆ Ideal for surface mounted applications
- ◆ Low reverse leakage
- ◆ Metallurgically bonded construction
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

**MECHANICAL DATA**

**Case:** JEDEC SOD-123FL molded plastic body over passivated chip

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.0007 ounce, 0.02 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	U1A UA	U1B UB	U1D UD	U1G UG	U1J UJ	U1K UK	U1M UM	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25.0							Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0		1.4	1.7			Volts	
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	5.0			100.0				µA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	50			75				ns
Typical thermal resistance	R <sub>θJA</sub>	180							K/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

**Note:** 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.



RATINGS AND CHARACTERISTIC CURVES U1A THRU U1M

