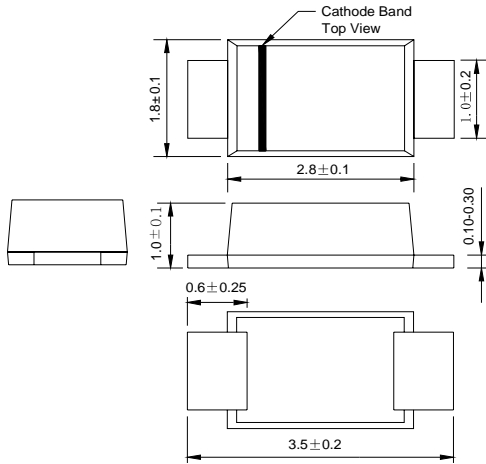




**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

Reverse Voltage - 20 to 100 Volts Forward Current - 3.0 Ampere

**SOD-123F**



Dimensions in millimeters

**FEATURES**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:  
250 °C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- Green compound (halogen & Sb2O3 free)
- AEC-Q101 qualified

**MECHANICAL DATA**

**Case:** JEDEC SOD-123F molded plastic body  
**Terminals:** 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	SOD32	SOD33	SOD34	SOD35	SOD36	SOD37	SOD38	SOD39	SOD310	UNITS	
	MARK	D32	D33	D34	D35	D36	D37	D38	D39	D310		
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum average forward rectified current	$I_{(AV)}$	3.0									Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60.0									Amps	
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.50			0.65			0.85			Volts	
Maximum DC reverse current $T_A=25^\circ C$	$I_R$	0.5									mA	
at rated DC blocking voltage $T_A=100^\circ C$		20.0										
Typical junction capacitance (NOTE 1)	$C_J$	220					120					pF
Operating junction temperature range	$T_J$	-65 to +125					-65 to +150					°C
Storage temperature range	$T_{STG}$	-65 to +150										°C

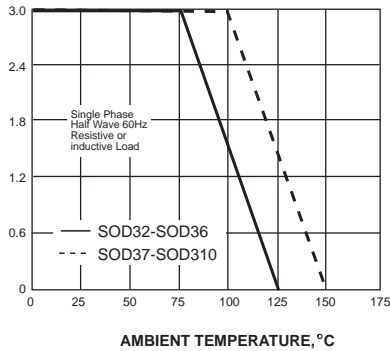
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



RATINGS AND CHARACTERISTIC CURVES U1A THRU U1M

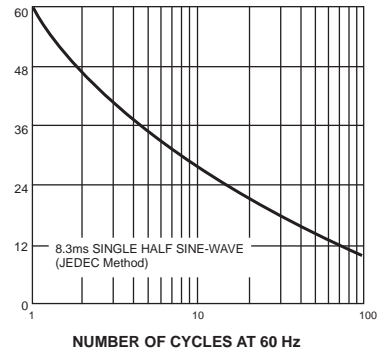
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



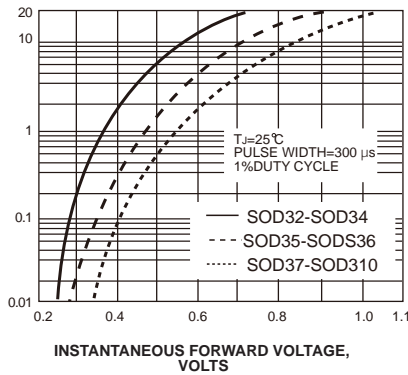
PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



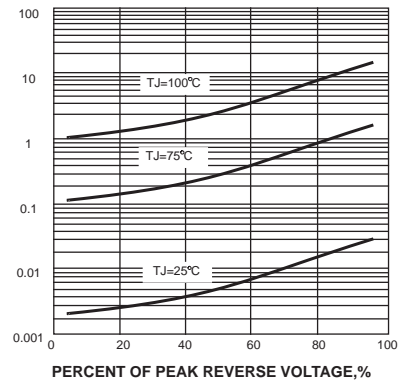
INSTANTANEOUS FORWARD CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

