

### SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 - 1000 V  
CURRENT: 1.0 A

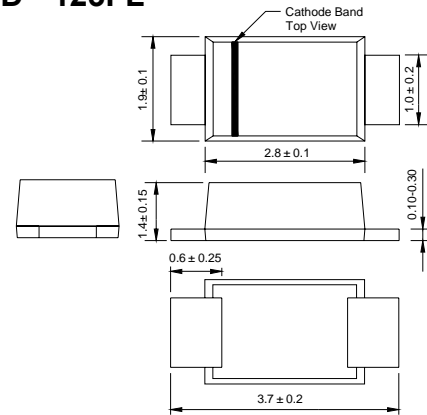
#### FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction
- High temperature soldering:  
250 /10 seconds at terminals

#### MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0008 ounces, 0.022 gram
- Mounting position: Any

#### SOD - 123FL



Dimensions in millimeters

#### 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, derate current by 20%.

#### ABSOLUTE RATINGS

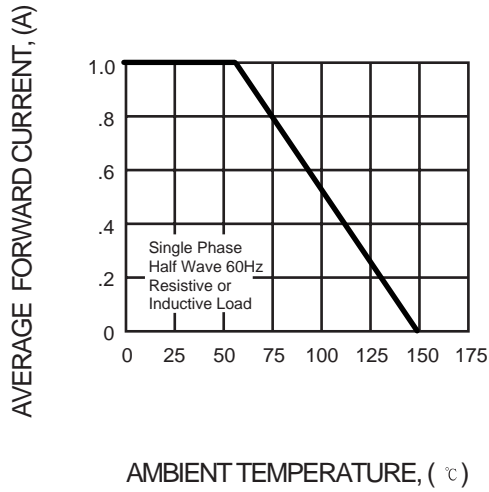
		SOD 1H1	SOD 1H2	SOD 1H3	SOD 1H4	SOD 1H5	SOD 1H6	SOD 1H7	SOD 1H8	UNITS	
Device marking code		H1	H2	H3	H4	H5	H6	H7	H8		
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V	
Maximum average forward rectified current $T_A=65$	$I_{(AV)}$	1.0								A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_L=25$	$I_{FSM}$	25								A	
Maximum instantaneous (NOTE 1) forward voltage at 1.0A	$V_F$	1.0		1.3			1.7			V	
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	$I_R$	10 200								$\mu A$	
Maximum reverse recovery time (NOTE 2)	$t_{rr}$	50					75				ns
Operating temperature range	$T_J$	- 55 --- + 150									
Storage temperature range	$T_{STG}$	- 55 --- + 150									

NOTES: 1. Pulse test: 300ms pulse width, 1% duty cycle.

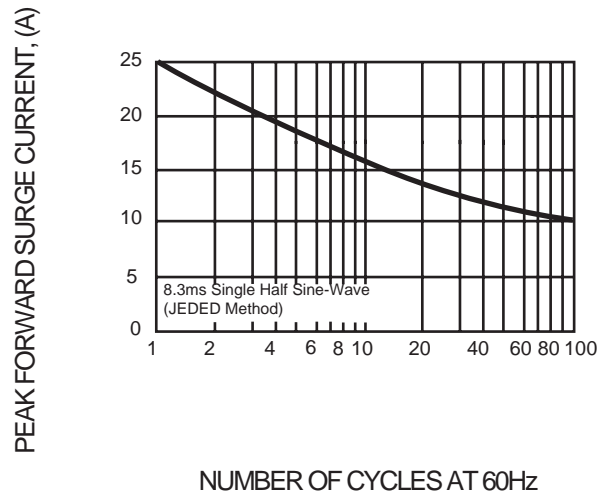
2. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

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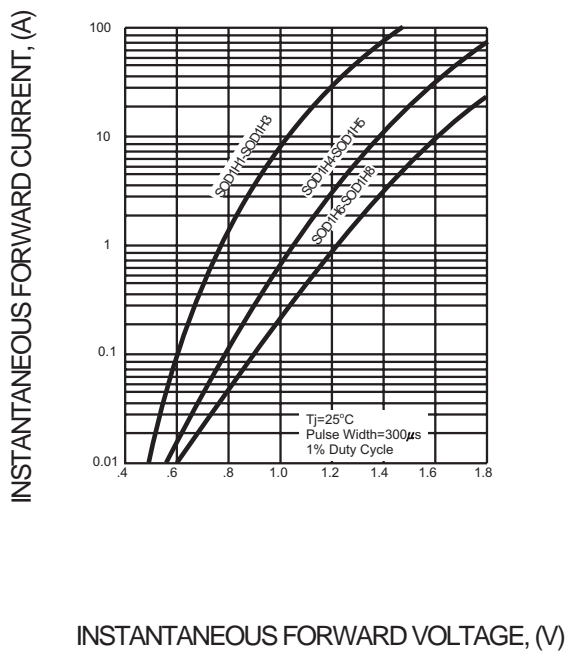
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



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



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

