

# F151 THRU F157

SINGLE PHASE 1.5AMP SURFACE MOUNT FAST RECOVERY RECTIFIER

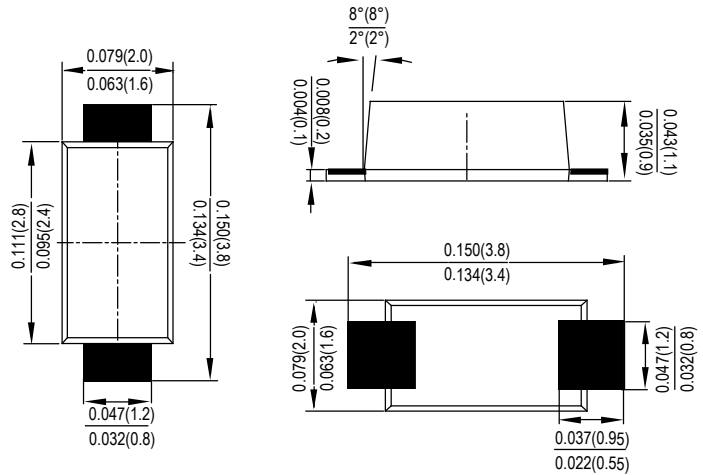
## Features

- Glass passivated die construction
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:  
260°C/10 seconds,0.375"(9.5mm) lead length,  
5 lbs. (2.3kg) tension
- Plastic material-UL flammability 94V-0

## 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

## SOD-123FL



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	F151	F152	F153	F154	F155	F156	F157	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$								
	$V_{RWM}$	50	100	200	400	600	800	1000	V
	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 30^\circ C$	$I_o$	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Forward Voltage per element @ $I_F = 1.5A$	$V_{FM}$	1.2							V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$	$I_R$	5.0 100							$\mu A$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	150				250	160		ns
Typical junction capacitance (NOTE 2)	$C_J$	15							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150							°C

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

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

FIG. 1- FORWARD CURRENT DERATING CURVE

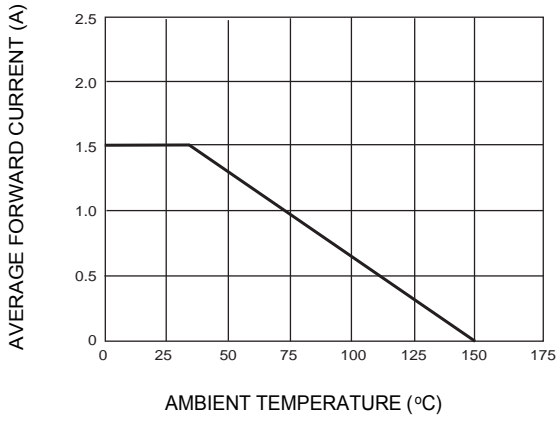


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

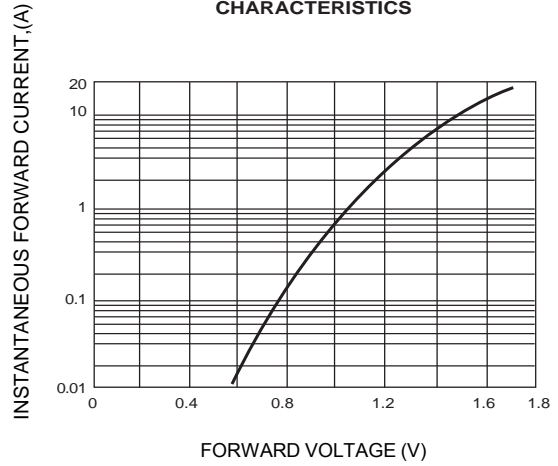


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

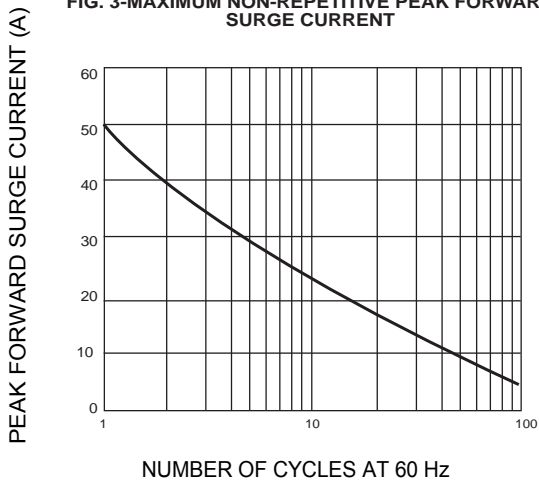


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

