

# F1~F7

## 1.0Amp Fast Recovery Surface Mounted Rectifiers

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
250°C/10 seconds at terminals

### Mechanical Data

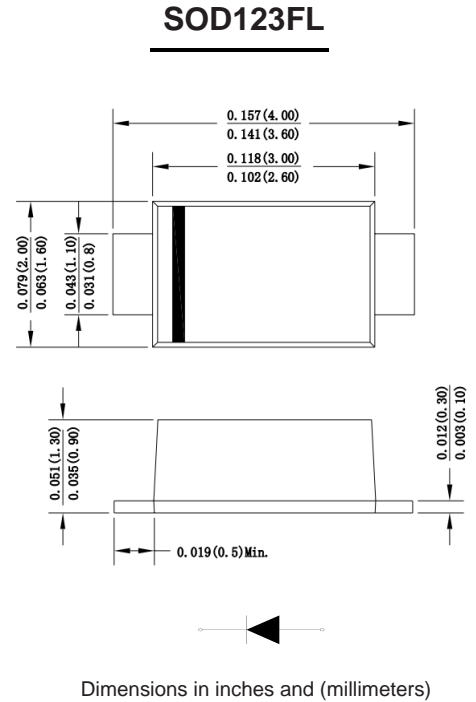
**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750,Method 2026

**Polarity :** Polarity symbol marking on body

**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%.

Parameter	SYMBOLS	F1	F2	F3	F4	F5	F6	F7	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	200	300	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	140	210	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	200	300	400	600	800	1000	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	35.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.30							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Maximum reverse recovery time(Note 1)	$T_{rr}$	150			250		500		ns
Typical junction capacitance (Note2)	$C_J$	9.0							pF
Typical thermal resistance	$R_{qJA}$	85.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

**Note:** 1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$   
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

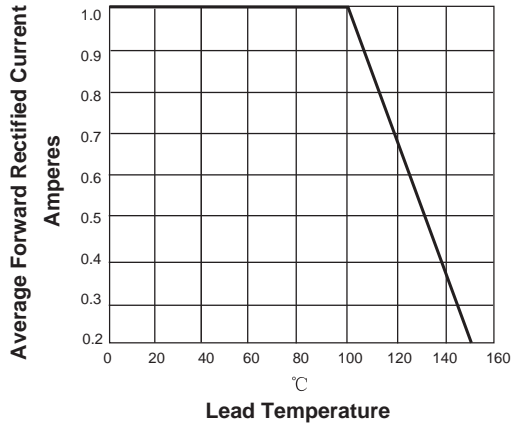


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

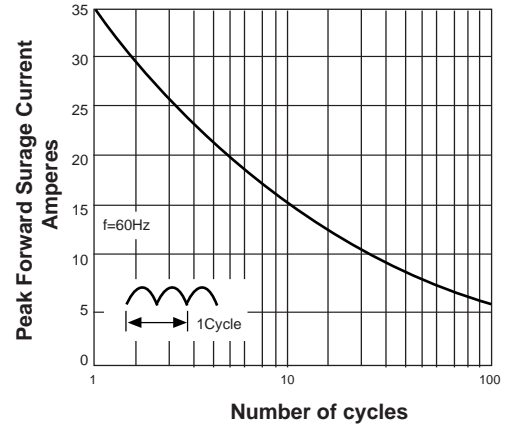


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

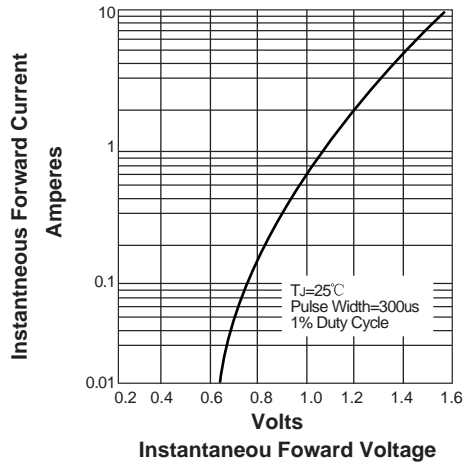


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

