

## SF1005F-SF1060F 10.0Amp Super Fast Rectifiers

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ Low forward voltage,high efficiency.
- ◆ For use in low voltage,high frequency inverters.
- ◆ Dual rectifier construction,positive center tap.
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds at terminals

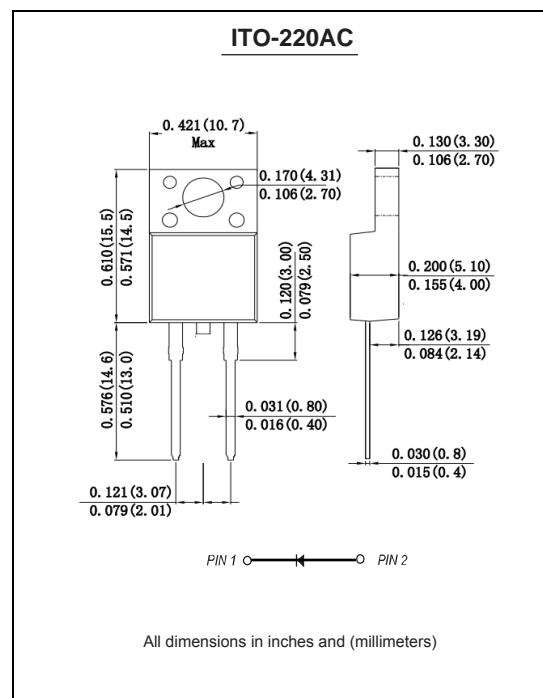
### Mechanical Data

**Case:** JEDEC ITO-220AC molded plastic body

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

**Finish :**All external surfaces corrosion resistant and terminal leads are readily solderable.

**Mounting Position:** Any



### 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	SF 1005F	SF 1010F	SF 1020F	SF 1040F	SF 1050F	SF 1060F	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	500	600	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	350	420	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	500	600	VOLTS
Maximum average forward rectified current at $T_L=60^\circ\text{C}$	$I_{(AV)}$	10.0						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200						Amps
Maximum instantaneous forward voltage at 10.0A	$V_F$	0.95		1.25		1.7		Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	10.0 500.0						$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	35						nS
Typical junction capacitance (Note 2)	$C_J$	100						pF
Typical thermal resistance	$R_{\theta JA}$	52						$^\circ\text{C/W}$
Storage temperature range & Operating junction	$T_J, T_{STG}$	-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

## SF1005F THRU SF1060F

FIG. 1- FORWARD CURRENT DERATING CURVE

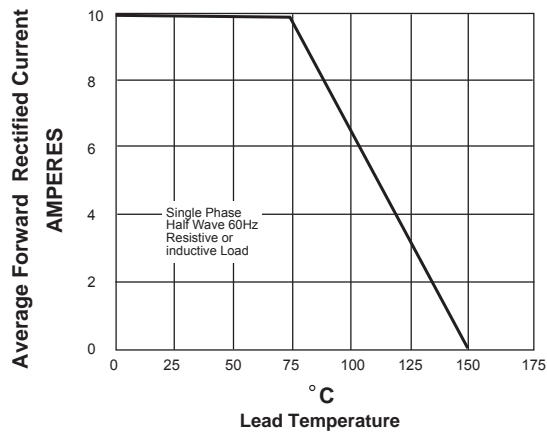


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

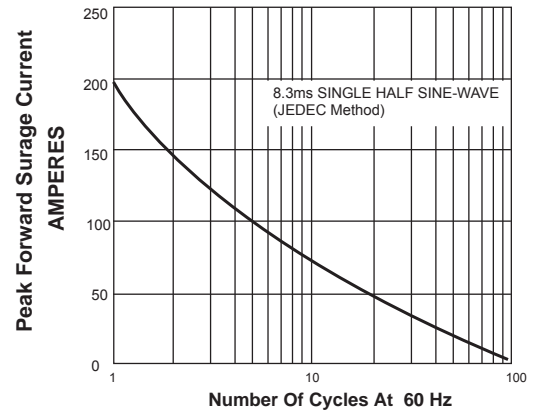


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

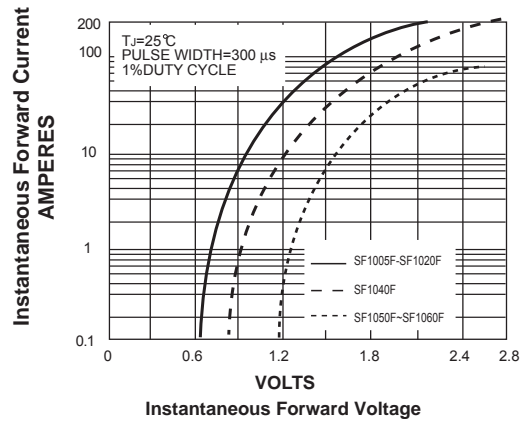


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

