

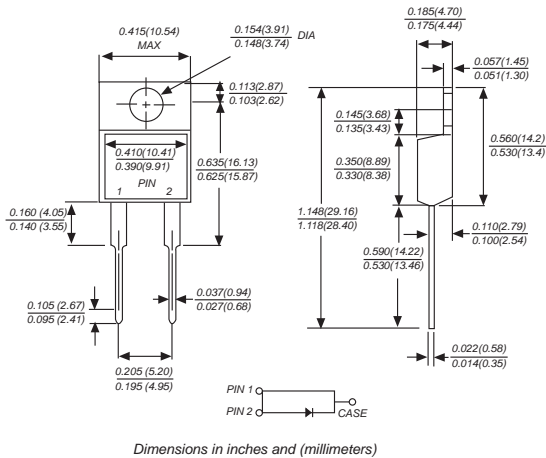


# SF1010 THRU SF1060

## ULTRAFAST RECOVERY RECTIFIERS

Reverse Voltage - 100 to 600 Volts Forward Current - 10 Amperes

### TO-220AC



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

### MECHANICAL DATA

**Case:** TO-220AC molded plastic body  
**Terminals:** Leads solderable per MIL-STD-750, Method 2026  
**Polarity:** As marked  
**Mounting Position:** Any  
**Weight:** 0.064 ounce, 1.81 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%.

MDD Catalog Number	SYMBOLS	SF1010	SF1020	SF1030	SF1040	SF1050	SF1060	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	300	400	500	600	VOLTS
Maximum RMS voltage	$V_{RMS}$	70	140	210	280	350	420	VOLTS
Maximum DC blocking voltage	$V_{DC}$	100	200	300	400	500	600	VOLTS
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	10						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	90						Amps
Maximum instantaneous forward voltage at 10A	$V_F$	1	1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	10		500				uA
Typical junction capacitance	$C_J$	200						pF
Maximum thermal resistance (NOTE 2)	$R_{\theta JC}$	3						°C/W
Maximum Reverse Recovery Time(Note1)	$T_{rr}$	35						nS
Operating Junction and Storage temperature range	$T_J, T_{STG}$	-55 to +150						°C

**Note:** 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .  
 2. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounte



# RATINGS AND CHARACTERISTIC CURVES SF1010 THRU SF1060

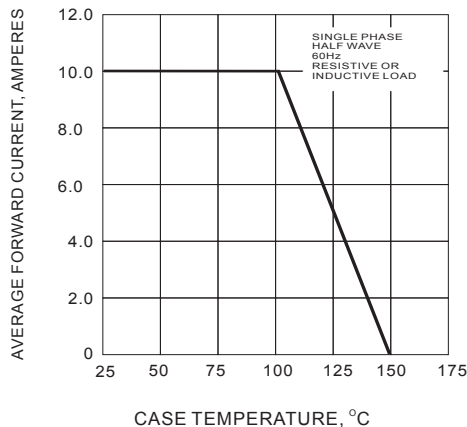


Fig.1 FORWARD CURRENT DERATING CURVE

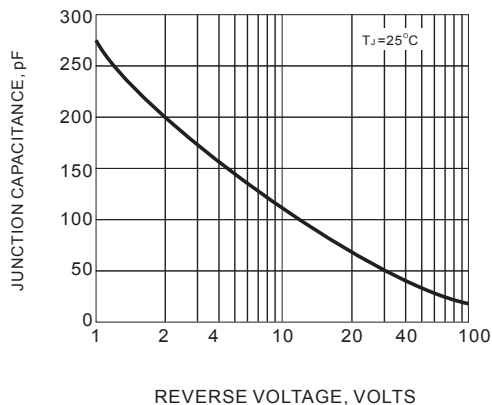


Fig.2 TYPICAL JUNCTION CAPACITANCES

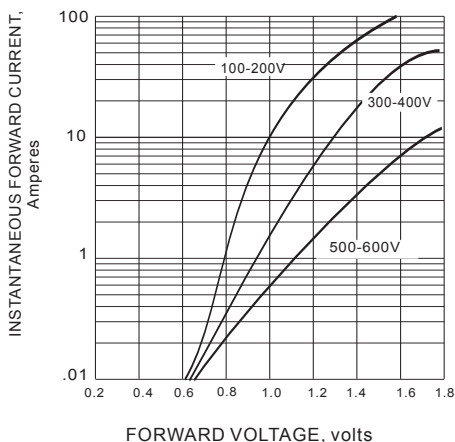


Fig.3 FORWARD CHARACTERISTICS

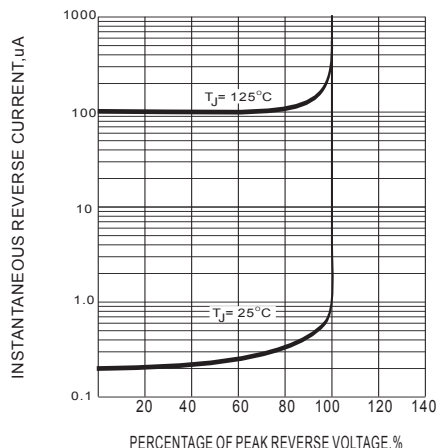


Fig.4 TYPICAL REVERSE CHARACTERISTICS

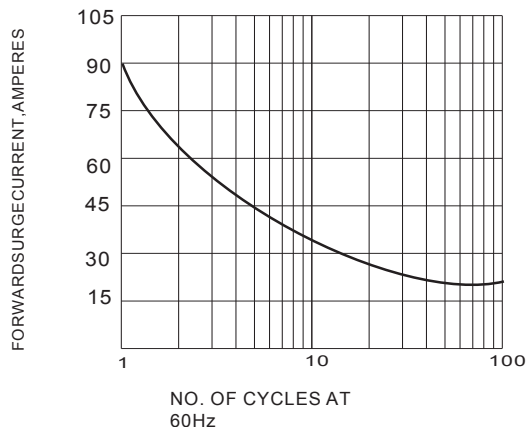


Fig.5 PEAK FORWARD SURGE CURRENT

The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

