



**VOLTAGE RANGE: 100 --- 600 V**  
**FORWARD CURRENT: 20 A**

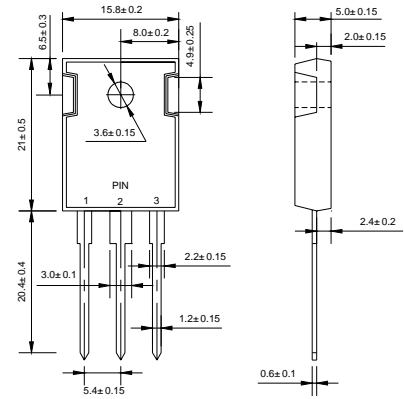
### Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

### Mechanical Data

- ◇ Case: JEDEC TO-3P, molded plastic
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.223 ounce, 6.3 grams
- ◇ Mounting position: Any

### TO-247



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

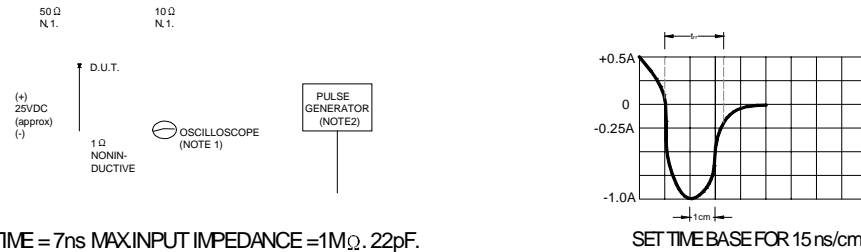
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

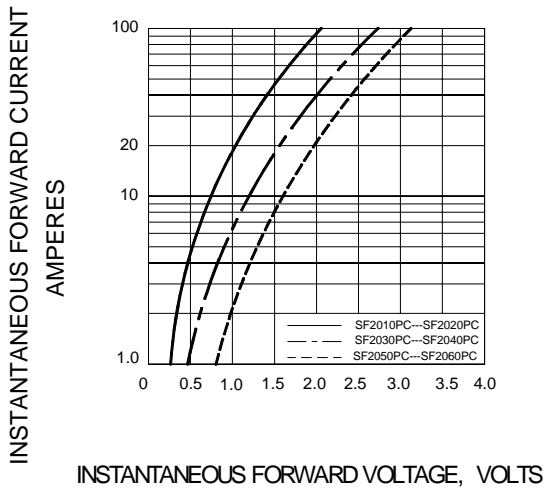
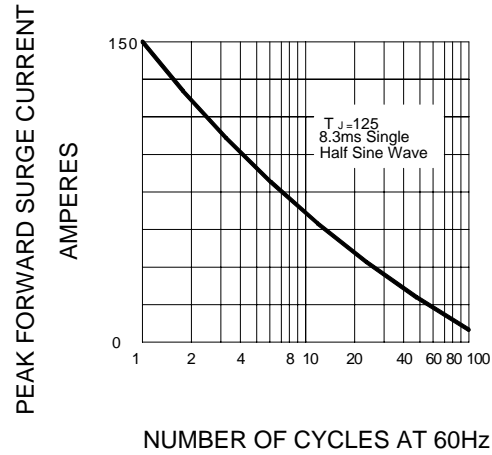
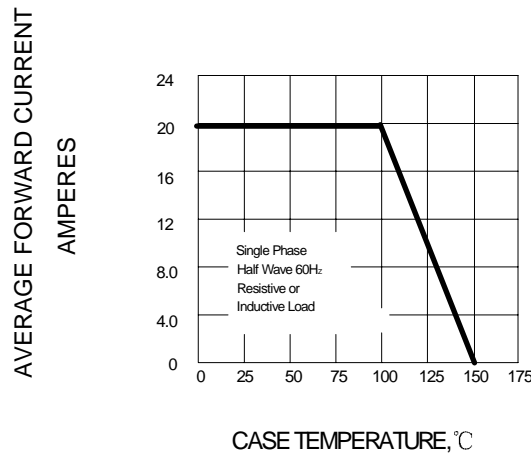
		SF 2010PC	SF 2020PC	SF 2030PC	SF 2040PC	SF 2050PC	SF 2060PC	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	100	200	300	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	70	140	210	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	100	200	300	400	500	600	V
Maximum average forward rectified current @ $T_C=100^\circ C$	$I_{F(AV)}$	20						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	150						A
Maximum instantaneous forward voltage @ 10 A	$V_F$	0.98		1.3		1.7		V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=150^\circ C$	$I_R$	5.0		10		500		$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	35						ns
Operating junction temperature range	$T_J$	- 55 ----- + 150						$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 150						$^\circ C$

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

**Ratings AND Characteristic Curves**

**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**


NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**

**FIG.3 – PEAK FORWARD SURGE CURRENT**

**FIG.4-FORWARD DERATING CURVE**


PACKAGE	PCS/TUBE	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
TO-247	30	1800	54*24*17	16	12