



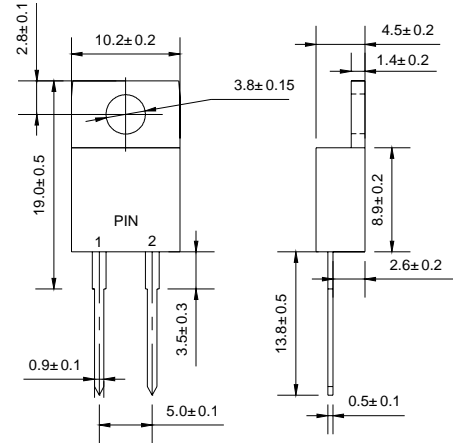
VOLTAGE RANGE: 50 --- 600 V
CURRENT: 5.0 A
TO-220AC

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-220AC, molded plastic
- ◇ Polarity: As marked
- ◇ Weight: 0.064 ounces, 1.96 gram
- ◇ Mounting position: Any



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

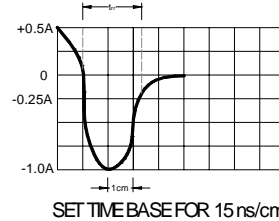
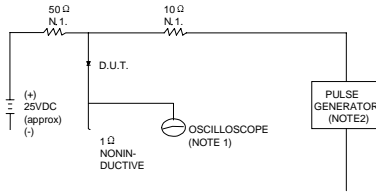
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbol	SF 505	SF 510	SF 520	SF 530	SF 540	SF 560	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	V
Maximum average forward rectified current @ $T_C=100^\circ C$	$I_{F(AV)}$	5.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	60						A
Maximum instantaneous forward voltage @ 5.0A	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			10.0		500	μA
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						$^\circ C$

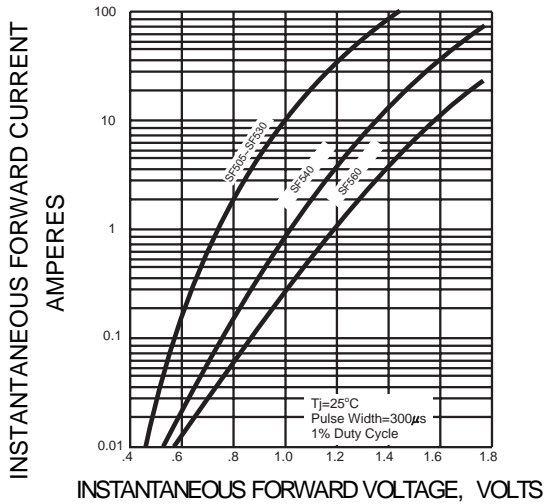
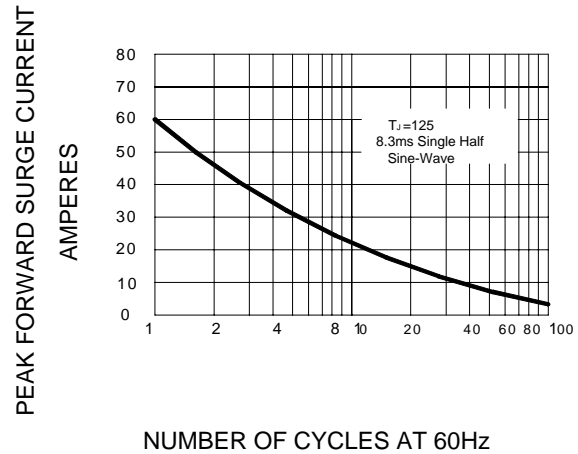
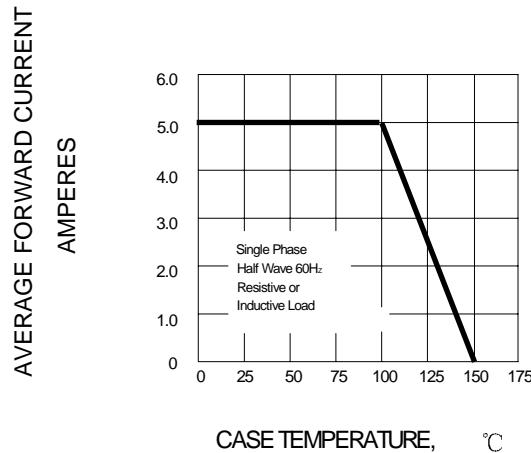
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.



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-220	50	5000	57*22*18	13	9