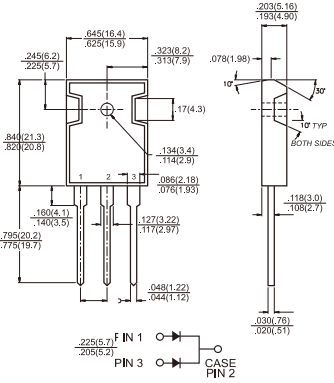


# SF2001PT - SF2008PT

20.0 AMPS. Glass passivated Super Fast Rectifiers



## TO-3P/TO-247AD



### Features

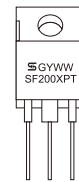
- ✦ UL Recognized File # E-326243
- ✦ Dual rectifier construction, positive center-tap
- ✦ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ✦ Glass passivated chip junctions
- ✦ Superfast recovery time, high voltage
- ✦ Low forward voltage, high current capability
- ✦ Low thermal resistance
- ✦ Low power loss, high efficiency
- ✦ High temperature soldering guaranteed: 260°C / 10 seconds, 0.16" (4.06mm) lead lengths at 5 lbs.(2.3kg) tension
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Dimensions in inches and (millimeters)

### Mechanical Data

- ✦ Cases: JEDEC TO-3P/TO-247AD molded plastic
- ✦ Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Weight: 5.6 grams

### Marking Diagram



- SF200XPT = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

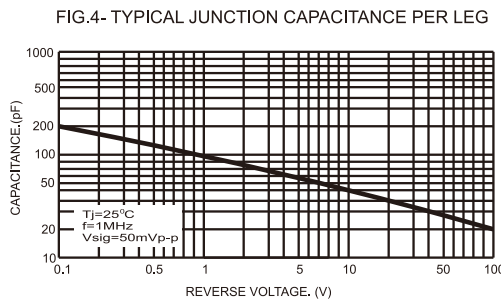
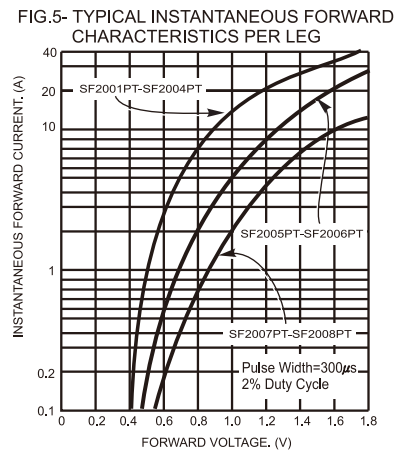
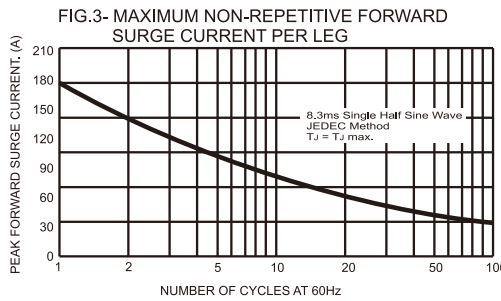
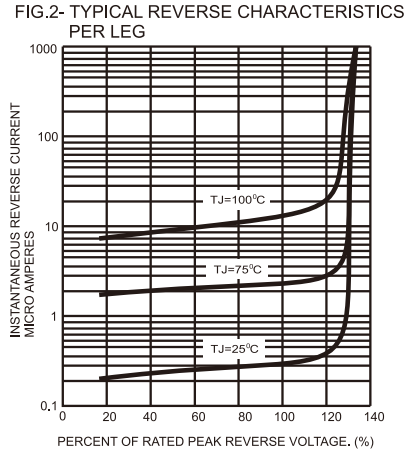
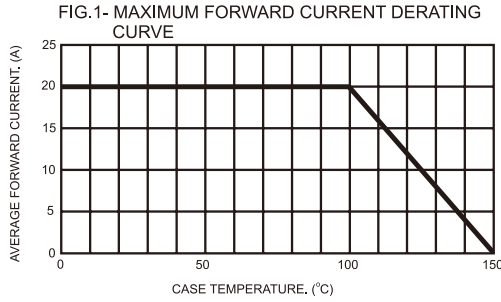
### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

Type Number	Symbol	SF	SF	SF	SF	SF	SF	SF	SF	Units
		2001PT	2002PT	2003PT	2004PT	2005PT	2006PT	2007PT	2008PT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current @T <sub>C</sub> = 100 °C	I <sub>F(AV)</sub>	20								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	I <sub>FSM</sub>	180								A
Maximum Instantaneous Forward Voltage @ 10A @ 20A	V <sub>F</sub>	0.975 1.10		1.30 1.50		1.70 1.90				V
Maximum DC Reverse Current at @ T <sub>A</sub> =25 °C Rated DC Blocking Voltage (Note 1)@ T <sub>A</sub> =125 °C	I <sub>R</sub>	10				400				uA uA
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	35								nS
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	175								pF
Typical Thermal Resistance (Note 4)	R <sub>θJC</sub>	2.5								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
 2. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, Recover to 0.25A.  
 3. Mounted on Heatsink size of 3" x 5" x 0.25" Al-Plate.  
 4. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (SF2001PT THRU SF2008PT)



**FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

