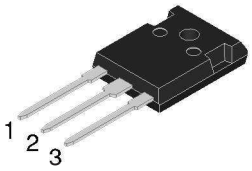
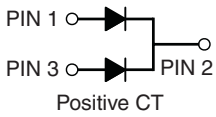
16.0 Amp. Glass Passivated Ultrafast Rectifiers

TO-3P/TO-247AD





Voltage	Current
200 to 600 V	16 A

- 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, 4.06mm lead lengths at 5 lbs. (2.3Kg) tension

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: 0.2 ounce, 5.6 grams

Absolute Maximum Ratings, according to IEC publication No. 134

		SF 1604PT	SF 1606PT	SF 1608PT
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V_{RMS}	Maximum RMS Voltage (V)	140	280	420
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
$I_{F\ (AV)}$	Maximum Average Forward Rectified Current at T_C = 100 °C	16 A		
I_{FSM}	Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	150 A		
C_j	Typical Junction Capacitance at 1MHz and reverse voltage of $4V_{DC}$	85.0 pF		
T_{rr}	Maximum Reverse Recovery Time I_F =0.5 A; I_R = 1 A; I_{RR} = 0.25 A T_j = 25 °C	35 nS		
T_j-T_{stg}	Operating Junction Temperature and Storage Temperature	– 55 to + 150 °C		

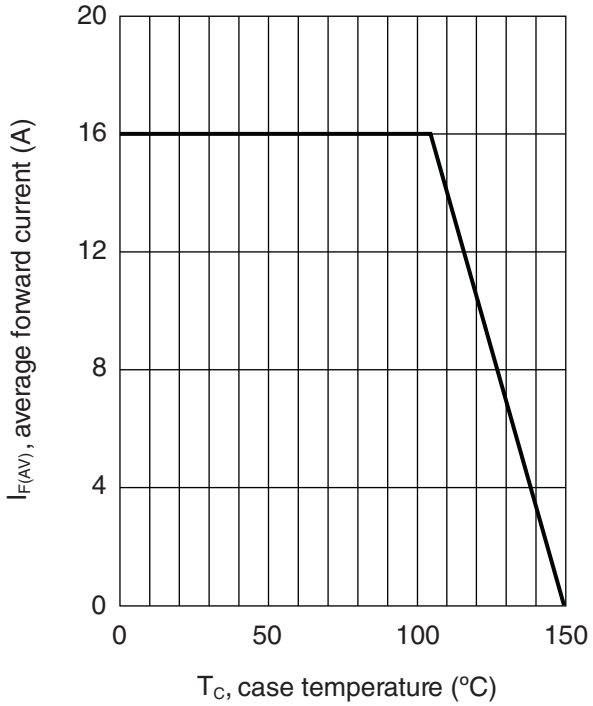
Electrical Characteristics

		SF 1604PT	SF 1606PT	SF 1608PT
V_F	Maximum Instantaneous Forward Voltage @ 8.0A	0.95 V	1.3 V	1.7 V
I_R	Maximum DC Reverse Current @ T_C = 25 °C	10 µA		
	at Rated DC Blocking Voltage @ T_C = 100 °C	500 µA		
R_{thj-c}	Typical Thermal Resistance (See Note)	2 °C/W		

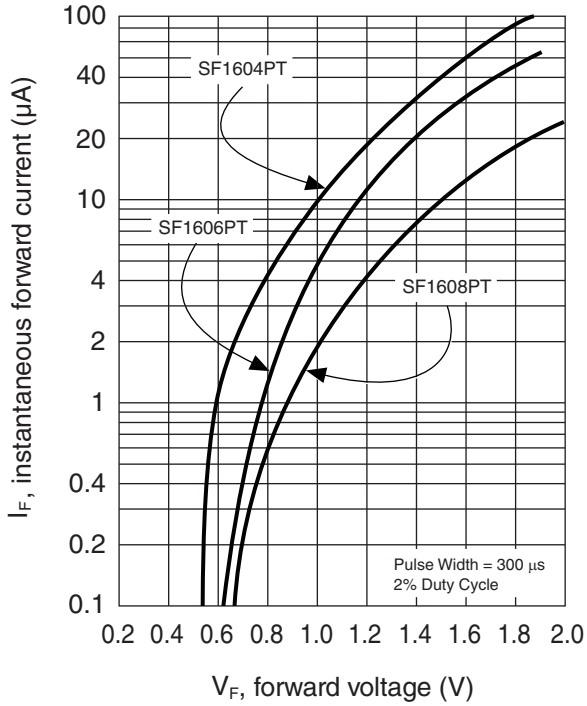
Note: Mounted on Heatsink Size of 76.2mm x 127mm x 6.35mm Al-Plate.

Rating And Characteristic Curves

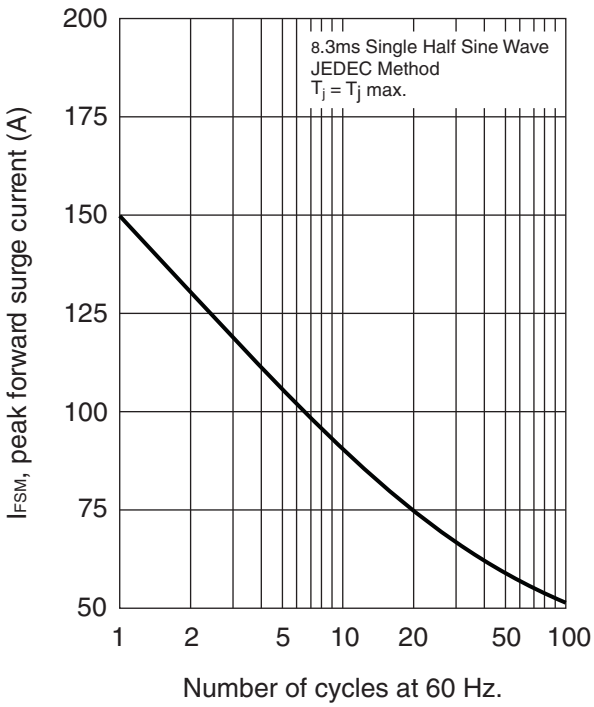
MAXIMUM FORWARD CURRENT
DERATING CURVE



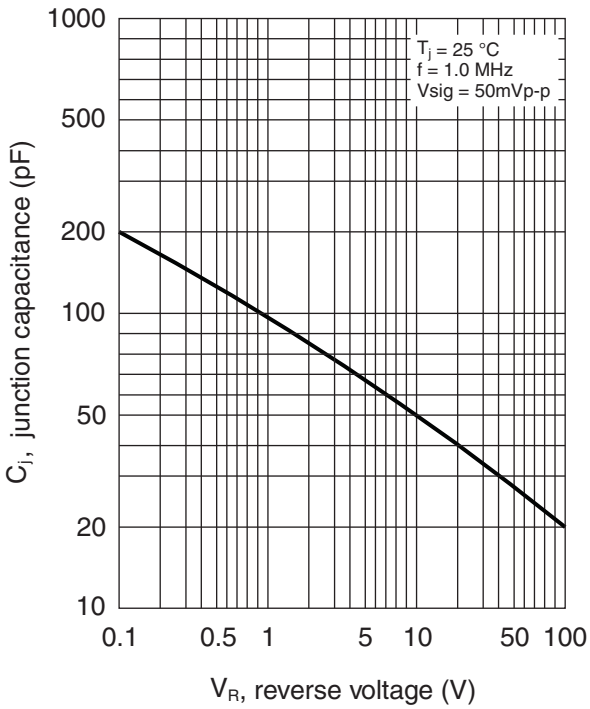
TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS PER LEG



MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT PER LEG

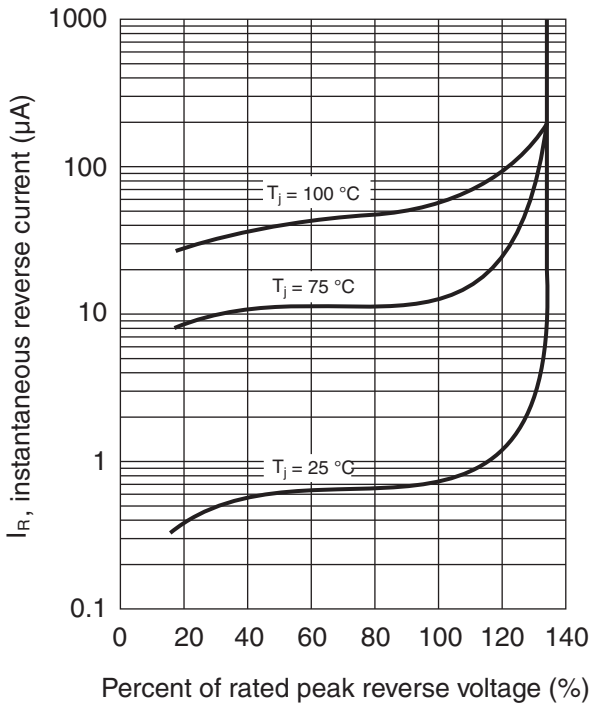


TYPICAL JUNCTION CAPACITANCE
PER LEG

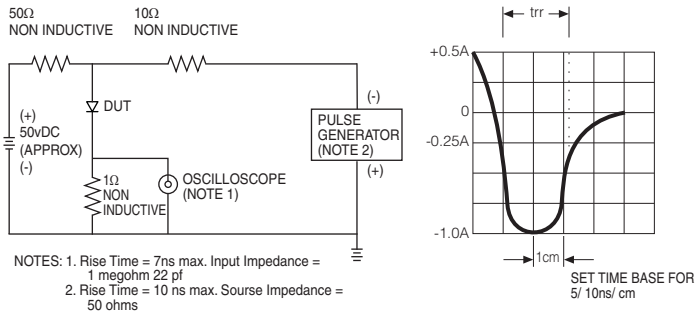


Rating And Characteristic Curves

TYPICAL REVERSE CHARACTERISTICS



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE MECHANICAL DATA TO-3P/TO-247AD