



RoHS
COMPLIANCE

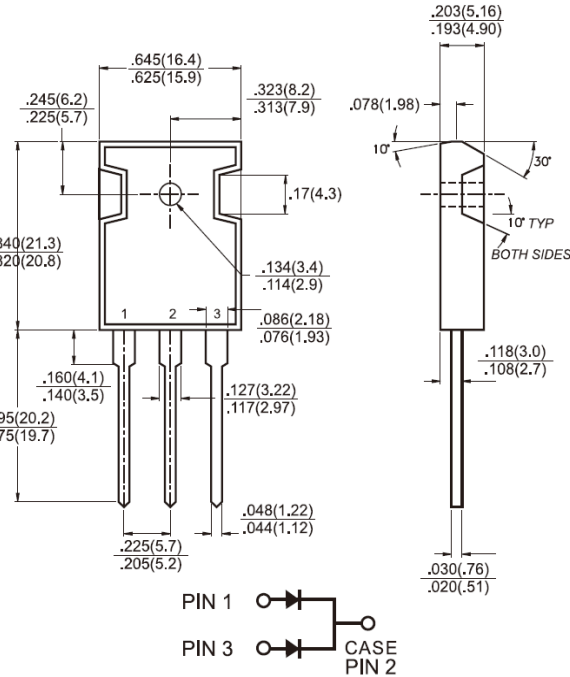


Features

- ◆ 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

Mechanical Data

- ◆ Case: JEDEC TO-3P/TO-247AD molded plastic
- ◆ Terminals: Pure tin plated, lead free, solderable per MIL-STD-705, Method 2026
- ◆ Polarity: As marked
- ◆ Mounting position: Any
- ◆ Weight: 5.6 grams



Dimensions in inches and (millimeters)

Marking Diagram



SF300XPT = 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	SF3008PT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current @ $T_C=100^\circ\text{C}$	$I_{F(AV)}$	30	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300	A
Maximum Instantaneous Forward Voltage @ 15A	V_F	1.7	V
Maximum Reverse Current @ Rated VR $T_A=25^\circ\text{C}$ (Note 1) $T_A=125^\circ\text{C}$	I_R	10 500	μA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	50	nS
Typical Junction Capacitance (Note 3)	C_j	175	pF
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	2.5	$^\circ\text{C/W}$
Operating Temperature Range	T_J	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note 4: Mount on 4" x 6" x 0.25" Al-Plate

RATINGS AND CHARACTERISTIC CURVES (SF3008PT)

FIG.1 FORWARD CURRENT DERATING CURVE

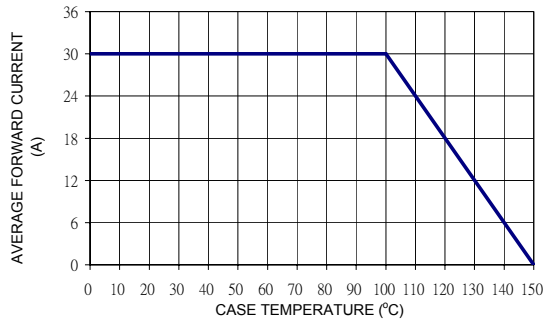


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

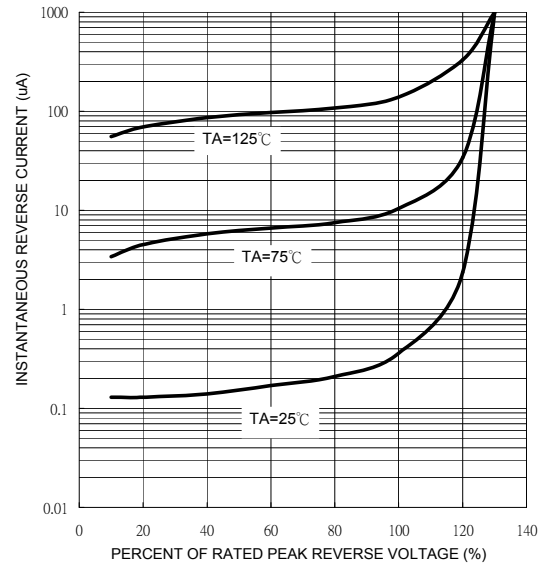


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

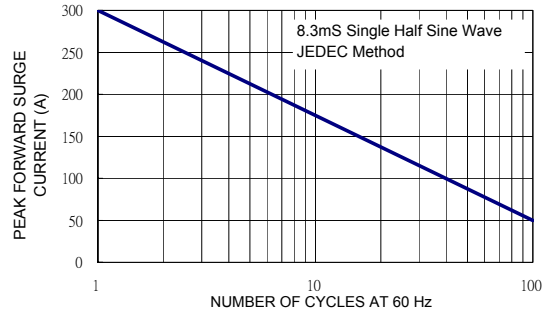


FIG. 4 TYPICAL JUNCTION CAPACITANCE PER LEG

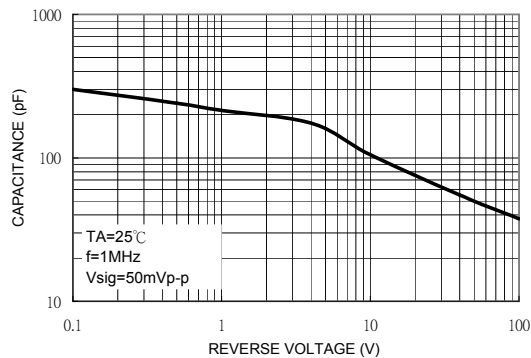


FIG. 5 TYPICAL FORWARD CHARACTERISTICS PER LEG

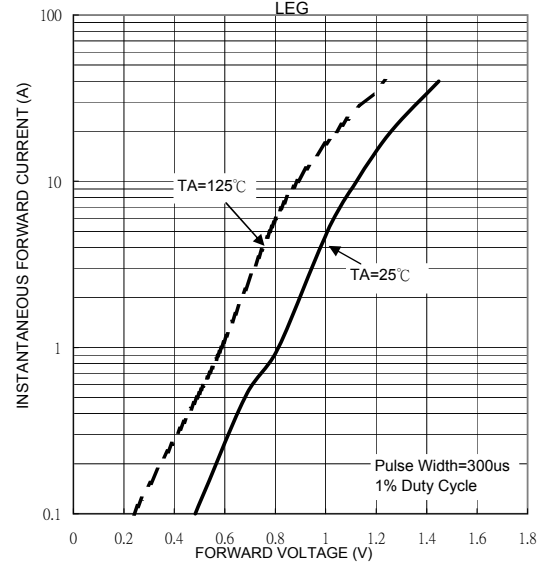


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

