Glass Passivated Super Fast Rectifiers

VOLTAGE RANGE: 50 --- 400 V

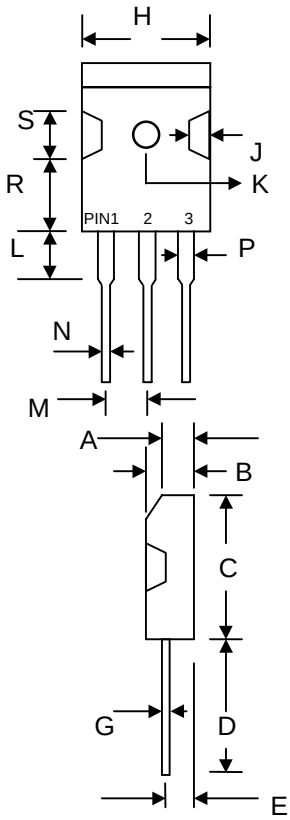
CURRENT:30.0A

Features

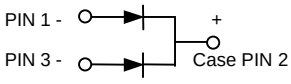
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-3P		
Dim	**Min**	**Max**
A	3.20	3.50
B	4.59	5.16
C	20.80	21.30
D	19.70	20.20
E	2.10	2.40
G	0.51	0.76
H	15.90	16.40
J	1.70	2.70
K	3.10 Ø	3.30 Ø
L	3.50	4.51
M	5.20	5.70
N	1.12	1.22
P	2.90	3.30
R	11.70	12.80
S	4.30 Typical	
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	SF 3001PT	SF 3002PT	SF 3003PT	SF 3004PT	SF 3005PT	SF 3006PT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	V
Average Rectified Output Current @T_C = 100°C	I_O	30						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300						A
Forward Voltage @I_F = 15A	V_{FM}	0.95				1.3		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	10 500						μA
Reverse Recovery Time (Note 1)	t_{rr}	35						nS
Typical Junction Capacitance (Note 2)	C_j	175						pF
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150						°C

Note: 1. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

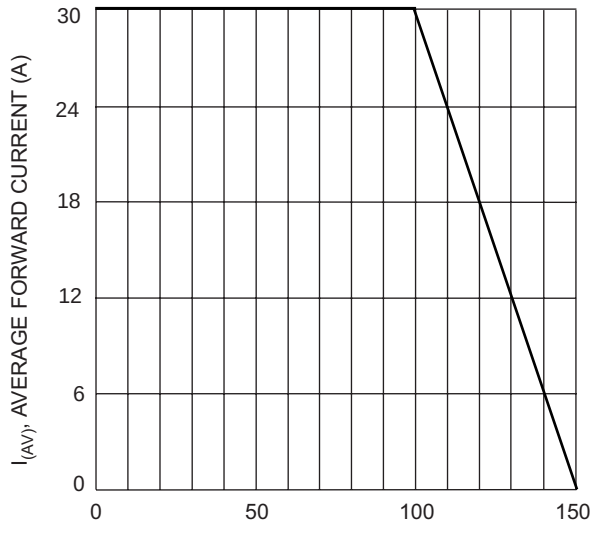


Fig. 1 Forward Current Derating Curve

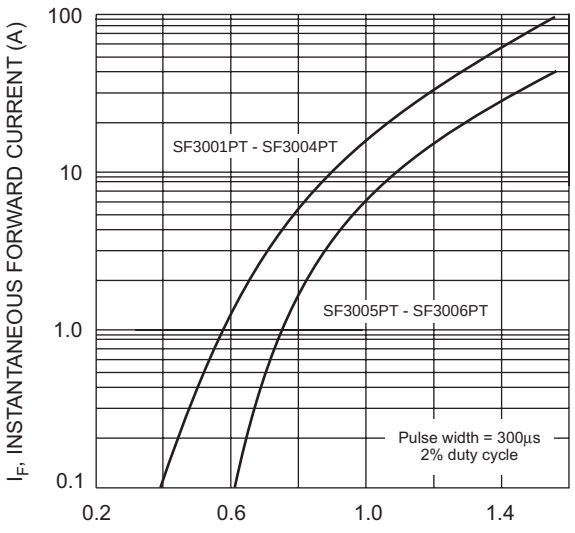


Fig. 2 Typical Forward Characteristics

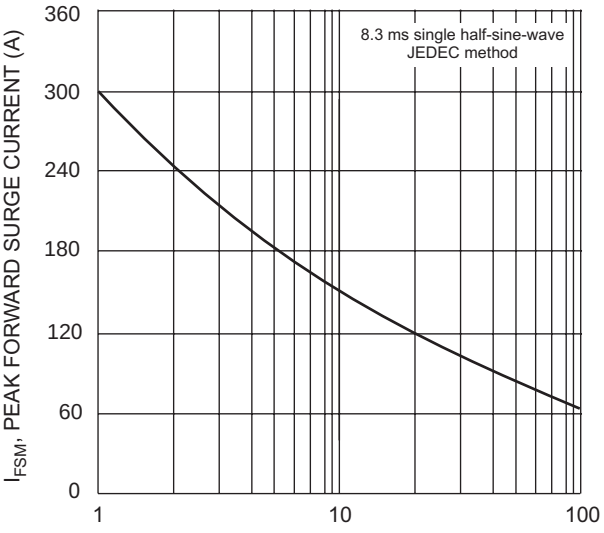


Fig. 3 Max Non-Repetitive Surge Current

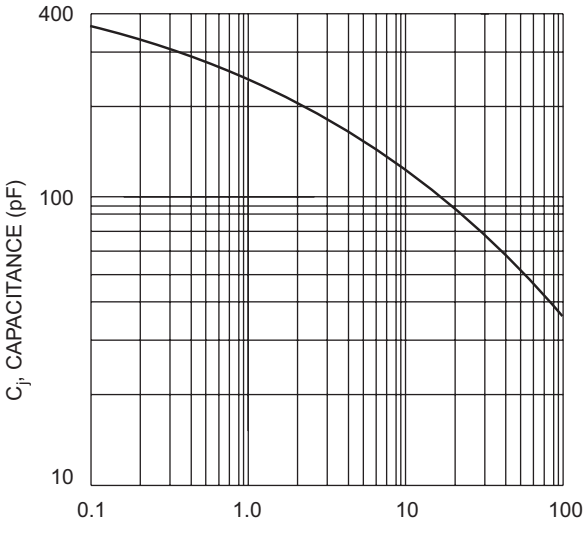


Fig. 4 Typical Junction Capacitance

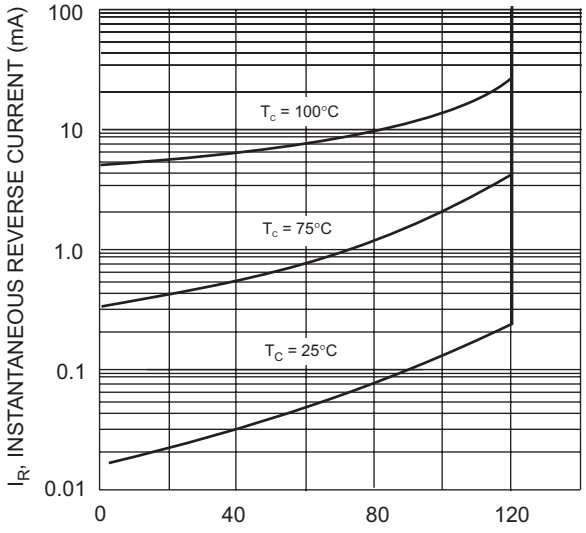


Fig. 5 Typical Reverse Characteristics