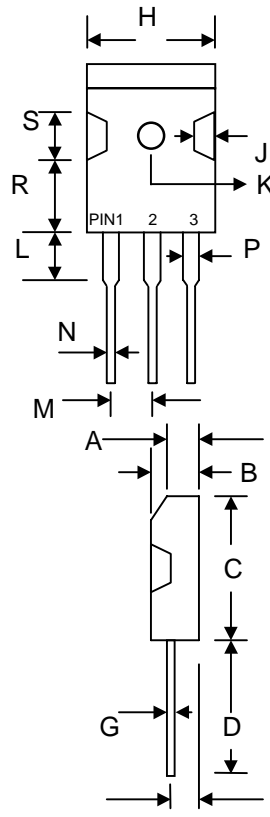


### Features

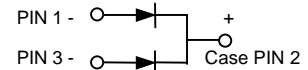
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### 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 @ $T_A=25^\circ\text{C}$ 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	$V_{RRM}$	50	100	150	200	300	400	V
Working Peak Reverse Voltage	$V_{RWM}$							
DC Blocking Voltage	$V_R$							
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	V
Average Rectified Output Current @ $T_C = 100^\circ\text{C}$	$I_O$	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 @ $I_F = 15\text{A}$	$V_{FM}$	0.95				1.3		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	10 500						$\mu\text{A}$
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						$^\circ\text{C}$

Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$ .  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

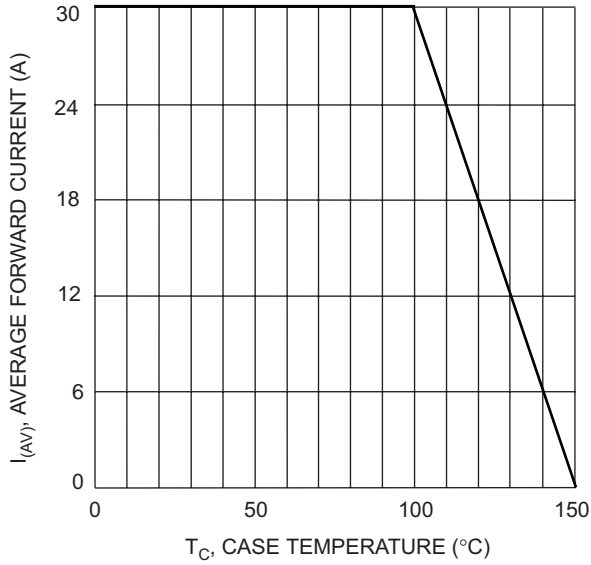


Fig. 1 Forward Current Derating Curve

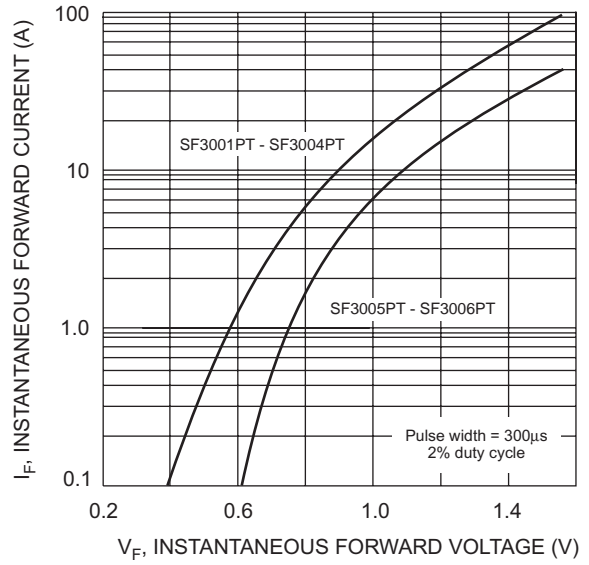


Fig. 2 Typical Forward Characteristics

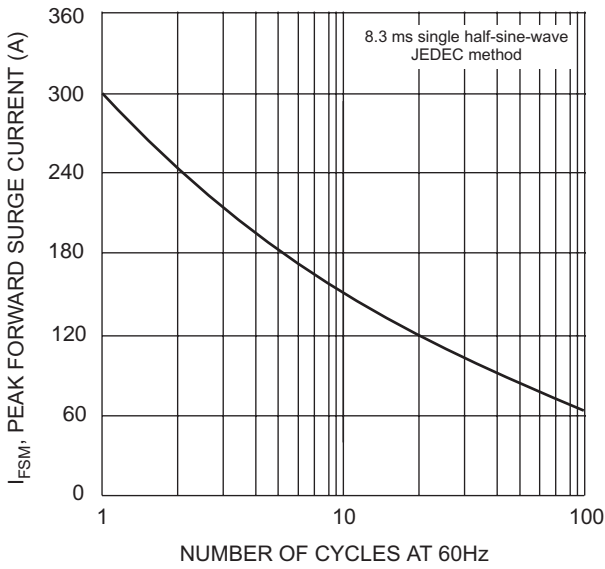


Fig. 3 Max Non-Repetitive Surge Current

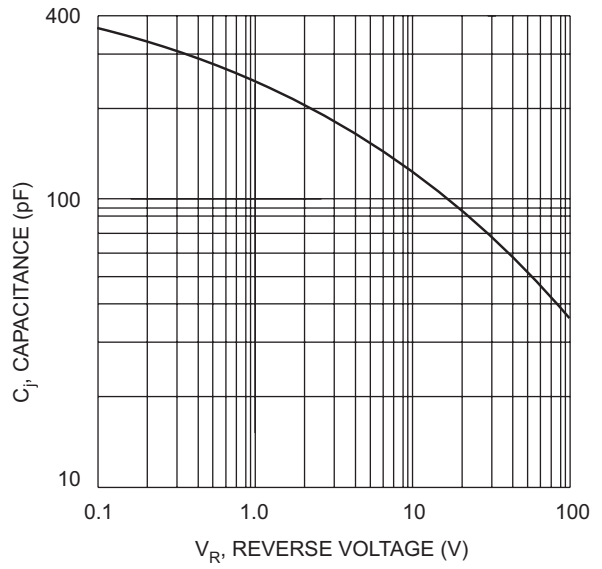


Fig. 4 Typical Junction Capacitance

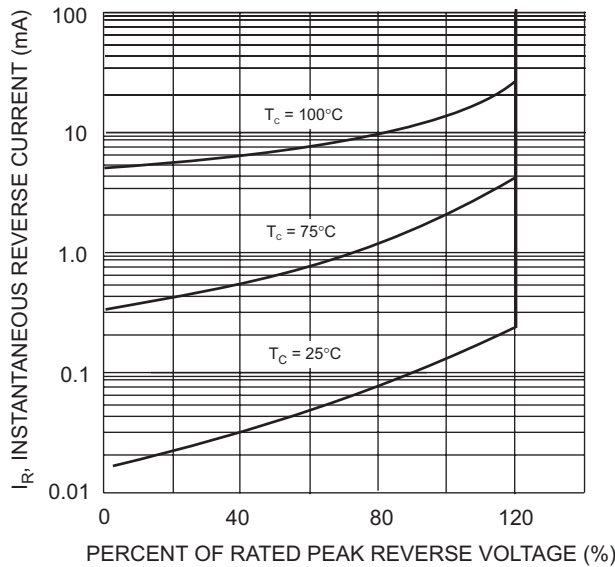


Fig. 5 Typical Reverse Characteristics

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SF3001PT	TO-3P	30 Units/Tube
SF3002PT	TO-3P	30 Units/Tube
SF3003PT	TO-3P	30 Units/Tube
SF3004PT	TO-3P	30 Units/Tube
SF3005PT	TO-3P	30 Units/Tube
SF3006PT	TO-3P	30 Units/Tube

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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