

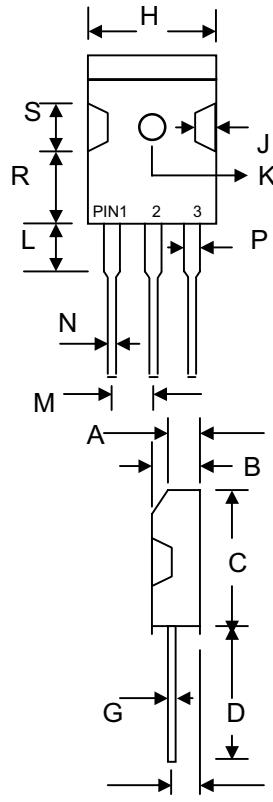
## Data Sheet 2625 Rev.—

## 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

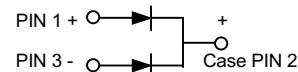
## Mechanical Data

- 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	0.126(3.20)	0.138(3.50)
B	0.181 (4.59)	0.203(5.16)
C	0.819(20.80)	0.839(21.30)
D	0.776(19.70)	0.795(20.20)
E	0.083(2.10)	0.094(2.40)
G	0.020(0.51)	0.030(0.76)
H	0.626(15.90)	0.646(16.40)
J	0.067(1.70)	0.106(2.70)
K	0.122(3.10)Ø	0.130(3.30)Ø
L	0.138(3.50)	0.176(4.51)
M	0.205 (5.20)	0.224(5.70)
N	0.044(1.12)	0.048(1.22)
P	0.114(2.90)	0.130(3.30)
R	0.461(11.70)	0.504(12.80)
S	0.170(4.30) Typical	

All Dimensions in inch(mm)

Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=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	V <sub>RRM</sub>							
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	150	200	300	400	V
DC Blocking Voltage	V <sub>R</sub>							
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	105	140	210	280	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>O</sub>				30			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>				300			A
Forward Voltage @I <sub>F</sub> = 15A	V <sub>FM</sub>			0.95		1.3		V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>				10			µA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>				35			nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>				175			pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>				-55 to +150			°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A. See figure 1.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

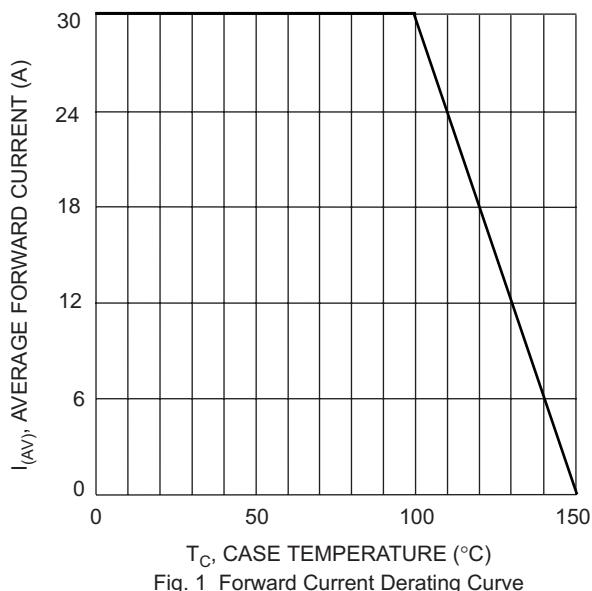


Fig. 1 Forward Current Derating Curve

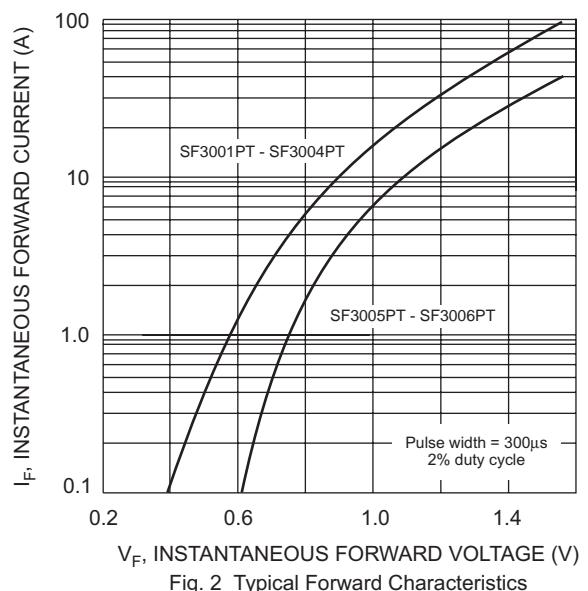


Fig. 2 Typical Forward Characteristics

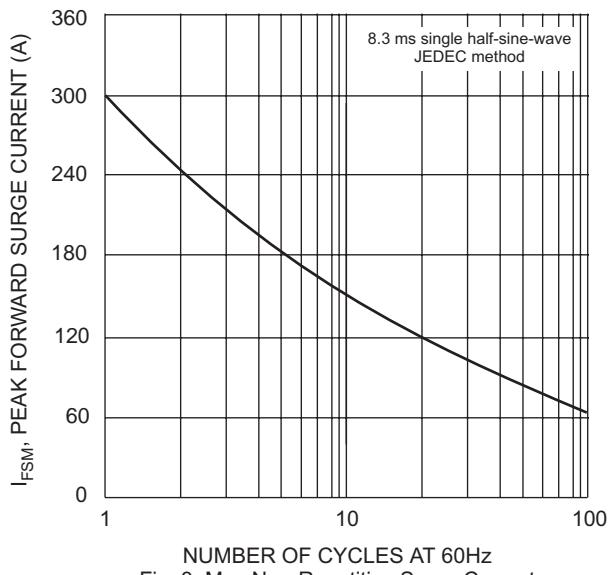


Fig. 3 Max Non-Repetitive Surge Current

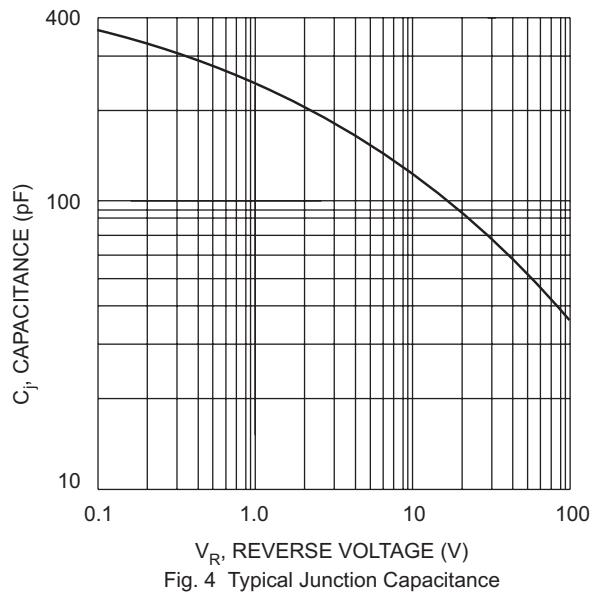


Fig. 4 Typical Junction Capacitance

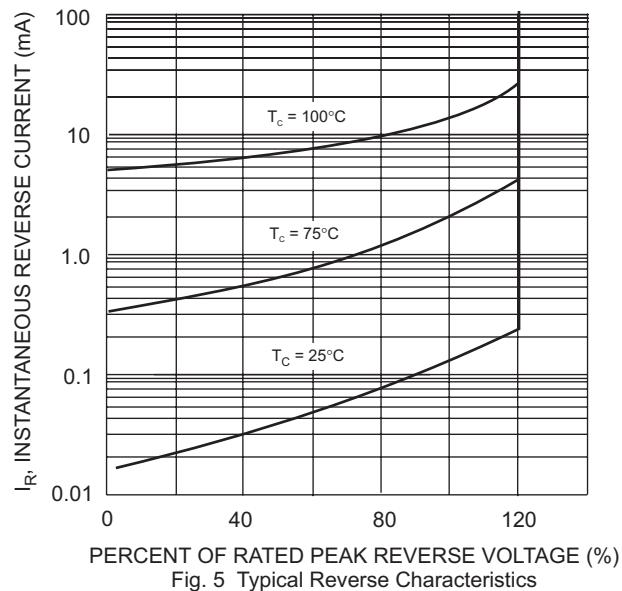


Fig. 5 Typical Reverse Characteristics