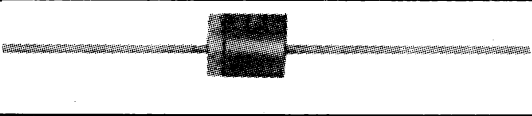




# SF61 THRU SF66

6.0 AMPS. SUPER FAST RECTIFIERS



## FEATURES

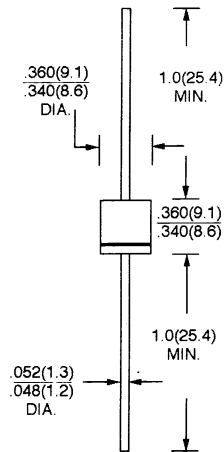
- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any
- \* Weight: 2.0 grams

**VOLTAGE RANGE**  
50 to 400 Volts  
**CURRENT**  
6.0 Amperes

## P600



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

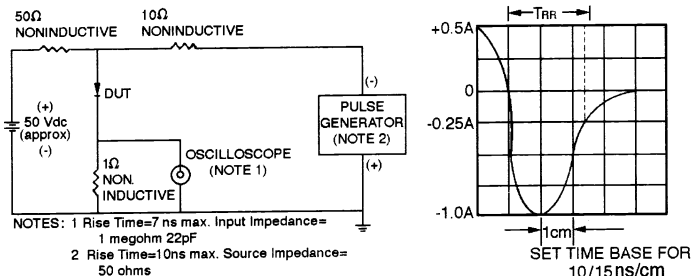
Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	SF61	SF62	SF63	SF64	SF65	SF66	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	V
Maximum D. C Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	V
Maximum Average Forward Current .375"(9.5mm) lead length @ $T_A = 55^\circ\text{C}$ (Note 1)	$I_{F(AV)}$	6.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150						A
Maximum Instantaneous Forward Voltage at 6.0A (Note 1)	$V_F$	0.95			1.25			V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	5.0			50			$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	35						nS
Typical Junction Capacitance (Note 3)	$C_J$	120			60			pF
Operating Temperature Range	$T_J$	- 65 to + 125						$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150						$^\circ\text{C}$

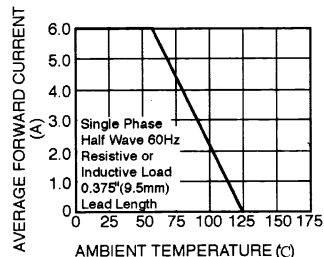
- NOTES: 1. Mounted on P. C. B with 1.1 x 1.1" (30 x 30mm) copper pads.  
 2. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .  
 3. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

## RATINGS AND CHARACTERISTIC CURVES (SF61 THRU SF66)

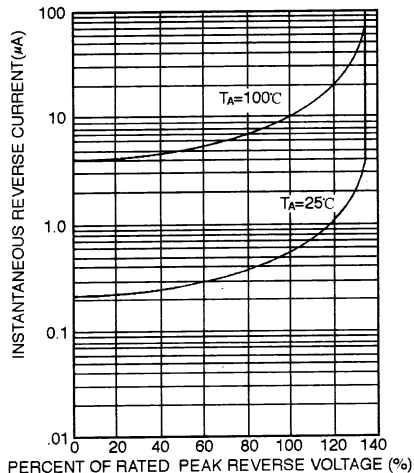
**FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS**



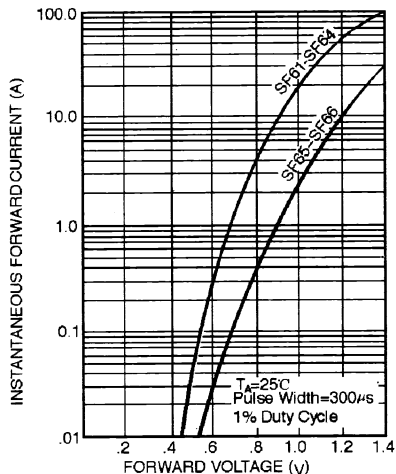
**FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE**



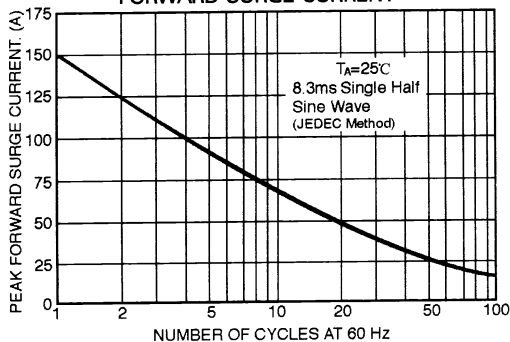
**FIG. 3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE**

