



# SF61 THRU SF68

**6.0 AMPS. SUPER FAST  
RECTIFIERS**

**Voltage Range  
50 to 600 Volts  
Current  
6.0 Amperes**

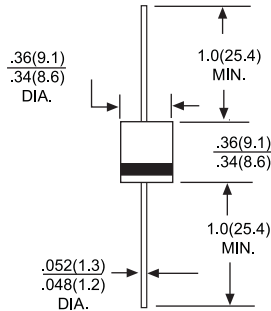
**Features**

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

**Mechanical Data**

- Cases: 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
- High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 1.2 grams

**R-6**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

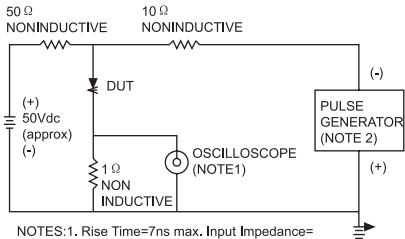
Type Number		SF61	SF62	SF63	SF64	SF65	SF66	SF67	SF68	UNITS	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	v	
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	v	
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	v	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @TA = 55°C	IF(AV)	6.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	150								A	
Maximum Instantaneous Forward Voltage @6.0A	VF	0.975			1.3		1.7			v	
Maximum DC Reverse Current @ TA = 25°C at Rated DC Blocking Voltage @ TA = 100°C	IR					5.0 100					uA uA
Maximum Reverse Recovery Time (Note 1)	TRR					35					nS
Typical Junction Capacitance (Note 2)	CJ	120				60					pF
Operating Temperature Range	TJ					-55 to +125				°C	
Storage Temperature Range	TSTG					-55 to +150				°C	

NOTES: 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

# RATING AND CHARACTERISTIC CURVES SF61 THRU SF68



FIG.1- REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES:1. Rise Time=7ns max. Input Impedance=1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance=50 ohms

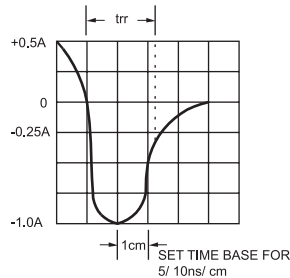


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

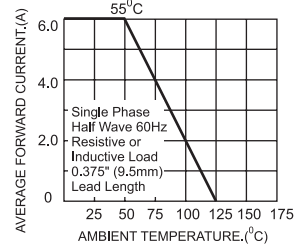


FIG.3- TYPICAL REVERSE CHARACTERISTICS

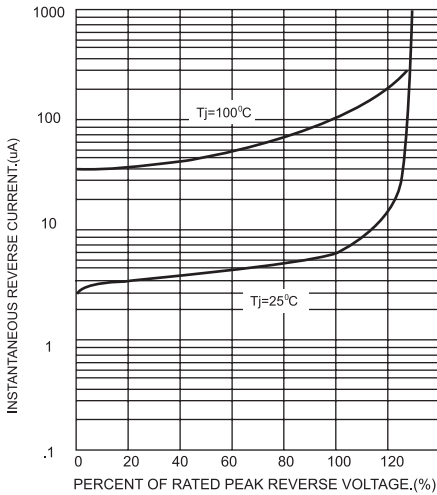


FIG.4- TYPICAL FORWARD CHARACTERISTICS

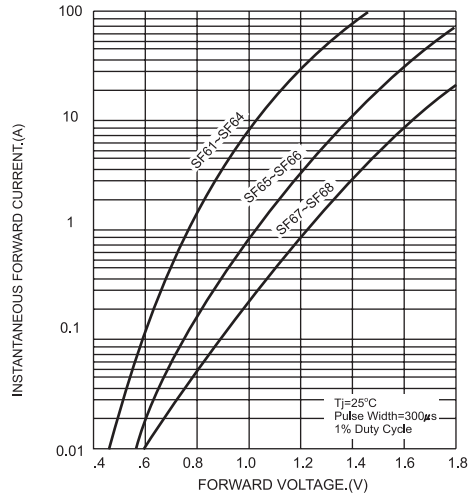


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

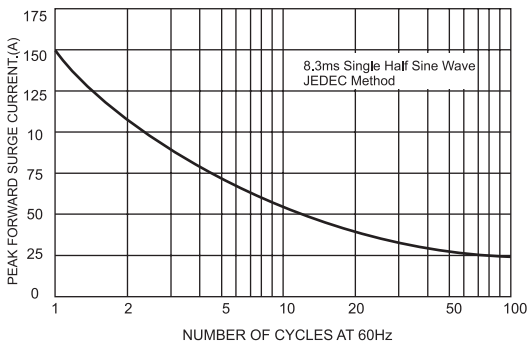


FIG.6- TYPICAL JUNCTION CAPACITANCE

