

SF61 THRU SF67



6.0 AMP SUPER FAST RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Good for switching mode application

MECHANICAL DATA

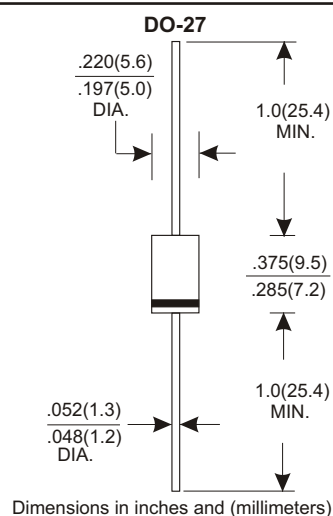
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

VOLTAGE RANGE

50 to 600 Volts

CURRENT

6.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

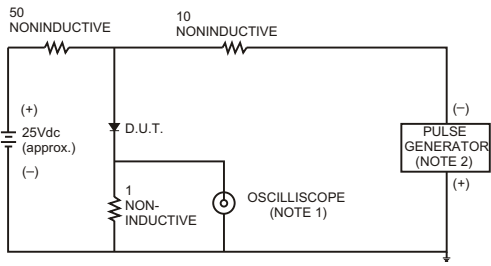
| TYPE NUMBER | SF61 | SF62 | SF63 | SF64 | SF65 | SF66 | SF67 | UNITS | |
|--|------|------|------|------|------|------|------|------------|----|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V | |
| Maximum RMS Voltage | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V | |
| Maximum DC Blocking Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V | |
| Maximum Average Forward Rectified Current | | | | | | | | | |
| .375" (9.5mm) Lead Length at Ta=55°C | | | | | | | | 6.0 | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | | | | | | | | 150 | A |
| Maximum Instantaneous Forward Voltage at 6.0A | 0.95 | | | | | 1.3 | 1.7 | V | |
| Maximum DC Reverse Current Ta=25°C | | | | | | | | 5.0 | μA |
| at Rated DC Blocking Voltage Ta=100°C | | | | | | | | 100 | μA |
| Maximum Reverse Recovery Time (Note 1) | | | | | | | | 35 | nS |
| Typical Junction Capacitance (Note 2) | | | | | | | | 100 | pF |
| Operating and Storage Temperature Range Tj, Tstg | | | | | | | | -65 — +150 | °C |

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SF61 THRU SF67)

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



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

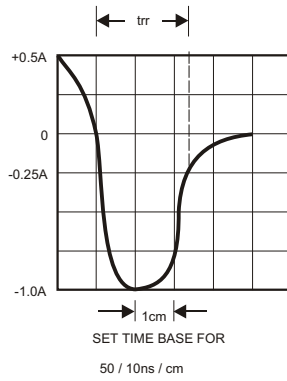


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

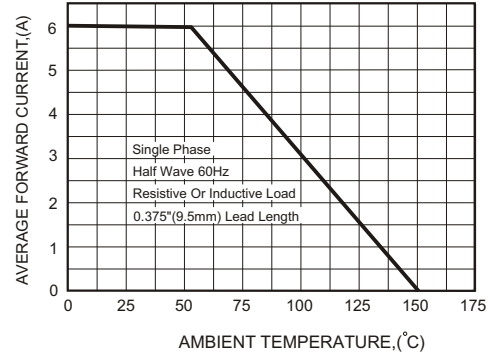


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

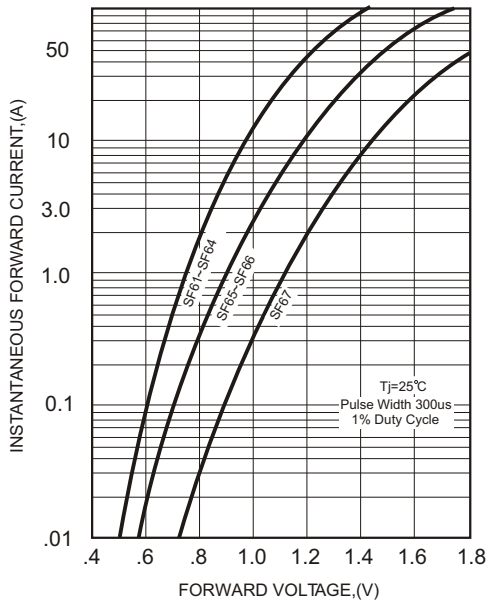


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

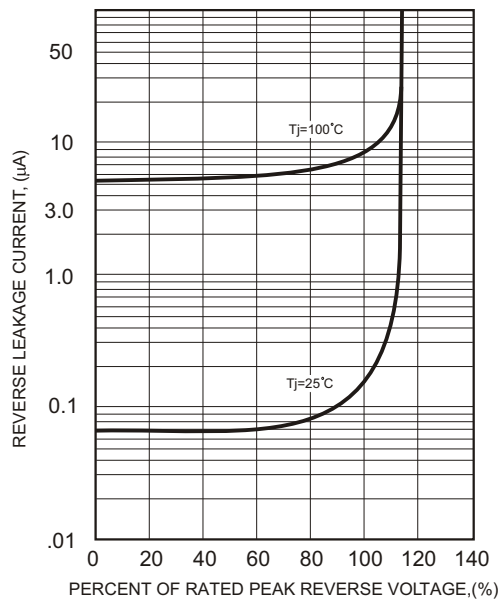


FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

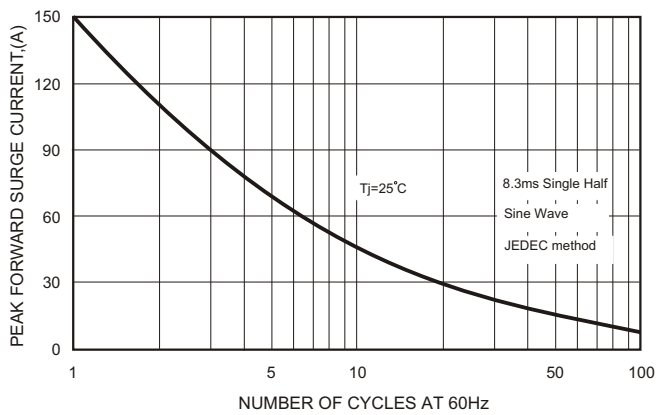


FIG. 6-TYPICAL JUNCTION CAPACITANCE

