

SF61G - SF68G

6.0 AMPS. Glass Passivated Super Fast Rectifiers

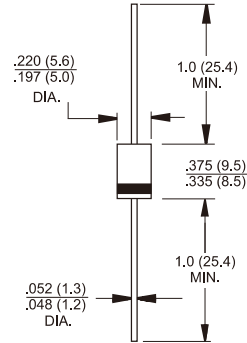
DO-201AD

Features

- ◆ High efficiency, low VF
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability
- ◆ Low power loss.
- ◆ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ◆ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◆ Case: Molded plastic
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ◆ Polarity: Color band denotes cathode
- ◆ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ◆ Mounting position: Any
- ◆ Weight: 1.2 grams



Dimensions in inches and (millimeters)

Marking Diagram



- SF6XG = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

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	Symbol	SF 61G	SF 62G	SF 63G	SF 64G	SF 65G	SF 66G	SF 67G	SF 68G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 55^\circ C$	$I_{F(AV)}$	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 @ 6.0A	V_F	0.975		1.3		1.7				V
Maximum DC Reverse Current at @ $T_A = 25^\circ C$ Rated DC Blocking Voltage (Note1) @ $T_A = 125^\circ C$	I_R					5.0				uA
						100				uA
Maximum Reverse Recovery Time (Note 2)	T_{rr}					35				nS
Typical Junction Capacitance (Note3)	C_j	100				50				pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$ $R_{\theta JL}$					40				°C/W
						5.0				
Operating Temperature Range	T_J	-65 to +150								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
 3. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 4. Mount on Cu-Pad Size 16mm x 16mm on PCB.

RATINGS AND CHARACTERISTIC CURVES (SF61G THRU SF68G)

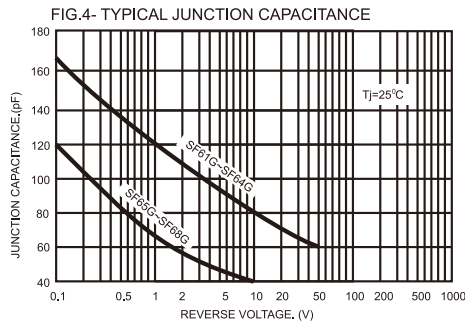
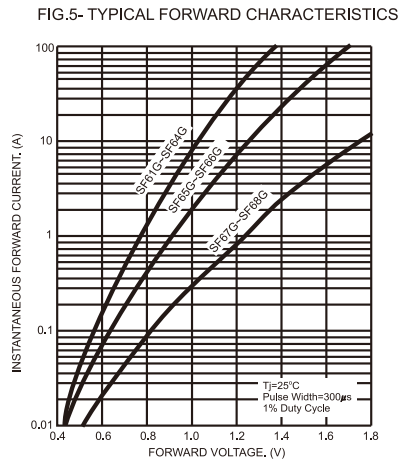
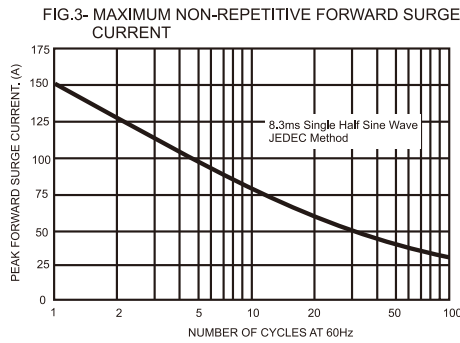
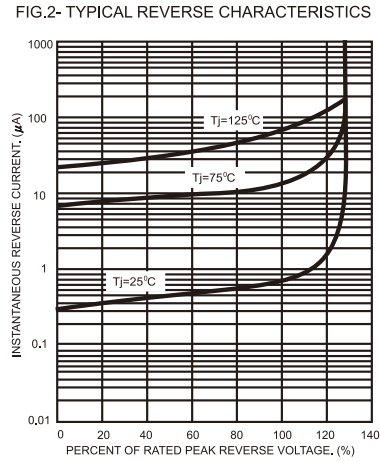
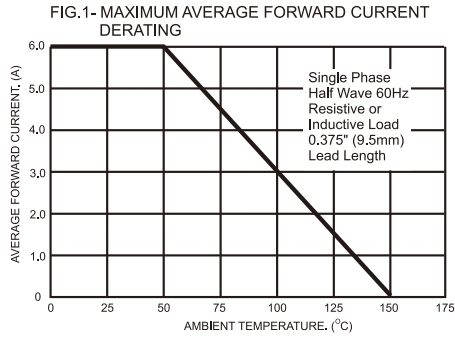


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

