



SF1G THRU SF7G

GLASS PASSIVATED SUPER FAST RECTIFIER

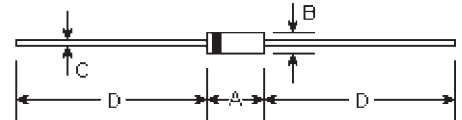
Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

Features

- Superfast recovery times
- Low forward voltage, high current capability
- Hermetically sealed
- Low leakage
- High surge capability
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound

A-405



Mechanical Data

- **Case:** Molded plastic, A-405
- **Terminals:** Axial leads, solderable to MIL-STD-202, method 208
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.008 ounce, 0.235 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	φ
C	0.020	0.024	0.5	0.6	φ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

	Symbols	SF1G	SF2G	SF3G	SF4G	SF5G	SF6G	SF7G	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak forward surge current, I_{FSM} (surge): 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0							Amps
Maximum forward voltage at 1.0 ADC	V_F	0.95		1.27		1.75			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0							μA
Maximum DC reverse current at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	400.0							μA
Maximum reverse recovery time (Note 1)	T_{rr}	35.0							nS
Typical junction capacitance (Note 2)	C_J	22.0							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	50.0							°C/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Notes:

- (1) Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
- (3) Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES

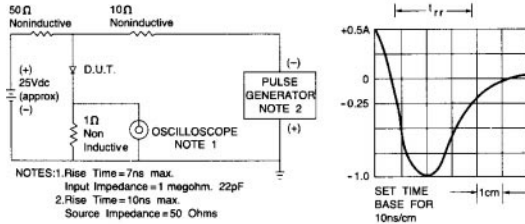


Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

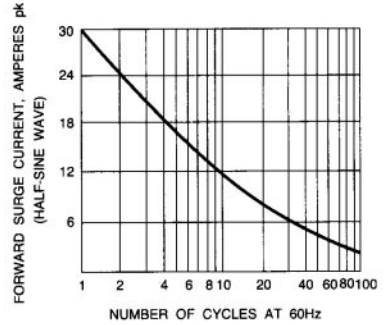


Fig. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

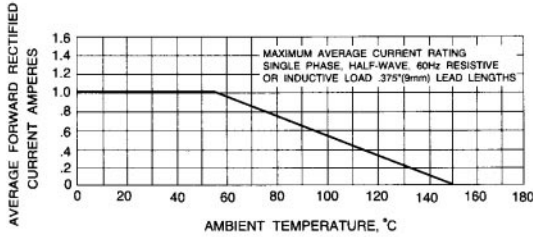


Fig. 3 - MAXIMUM AVERAGE FORWARD CURRENT RATING

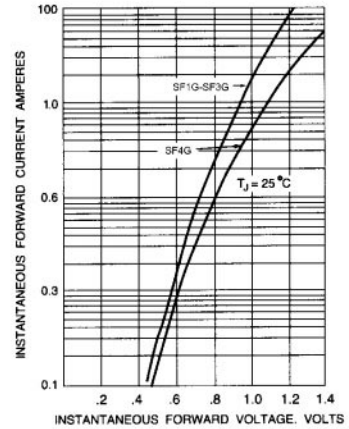


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

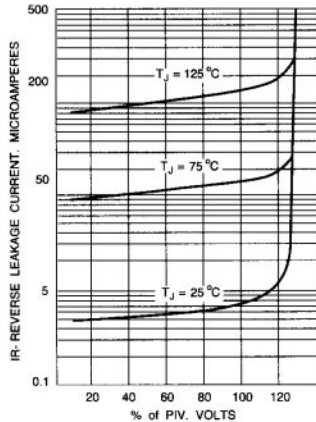


Fig. 5 - TYPICAL REVERSE CHARACTERISTICS

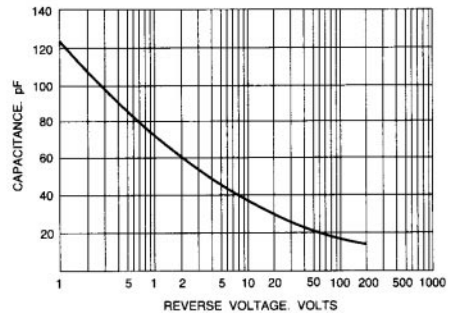


Fig. 6 - TYPICAL JUNCTION CAPACITANCE