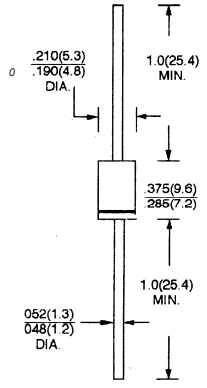
SF31G THRU SF38G

GLASS PASSIVATED SUPER FAST RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 3.0 Ampere

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

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

MECHANICAL DATA

Case: Molded plastic
Epoxy: UL94V-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:1.18 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	*SYMBOLS*	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	SF38G	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A=55 °C(Note 1)	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100							Amps
Maximum instantaneous forward voltage at 3.0A	V_F	0.95				1.25			Volts
Maximum DC reverse current T_A=25° C at rated DC blocking voltage T_A=125°C	I_R	5.0 50							μA
Maximum reverse recovery time (NOTE 2)	t_{rr}	35							ns
Typical junction capacitance (NOTE 3)	C_J	60				30			pF
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150							°C

Note: 1.Each lead mounted on a 0.8X0.8X0.04"(20X20X1mm) copper heat-sink.
2.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES SF31G THRU SF38G

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

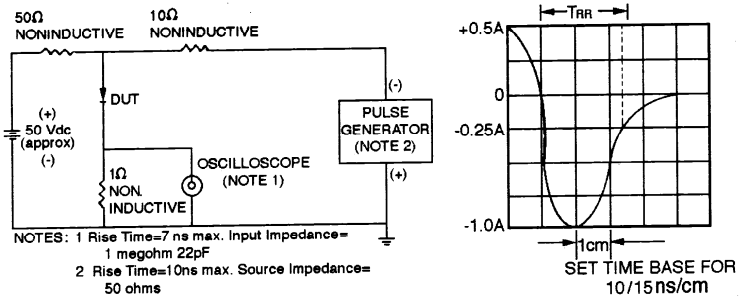


FIG.2 – TYPICAL FORWARD CURRENT DERATING CURVE

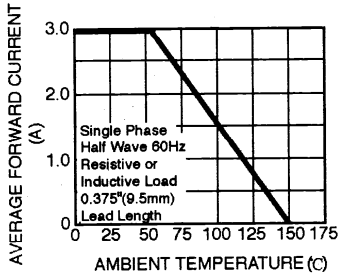


FIG.3 – TYPICAL REVERSE CHARACTERISTICS

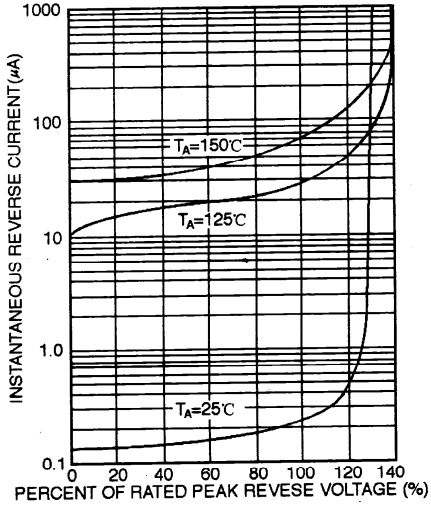


FIG.4 – TYPICAL FORWARD CHARACTERISTICS

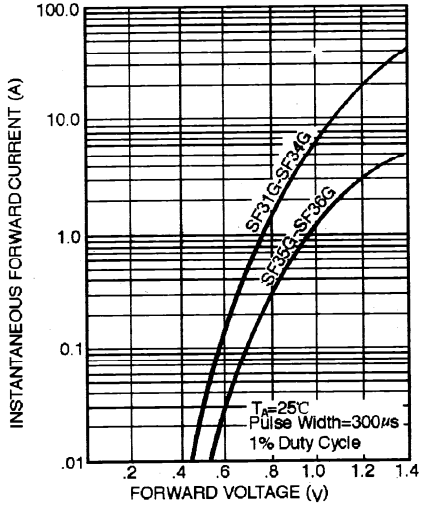


FIG.5 – MAXIMUM NON – REPETITIVE FORWARD SURGE CURRENT

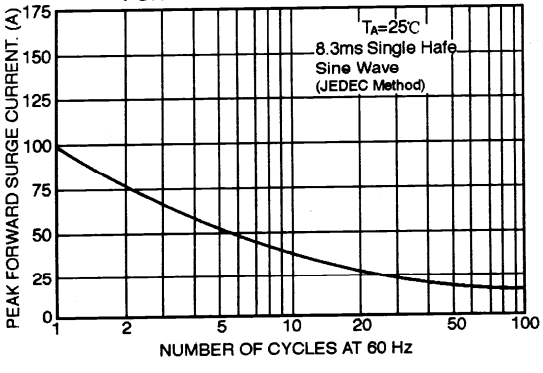


FIG.6 – TYPICAL JUNCTION CAPACITANCE