



SF31G THRU SF36G

3.0 AMPS. GLASS PASSIVATED SUPER FAST RECTIFIERS



FEATURES

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

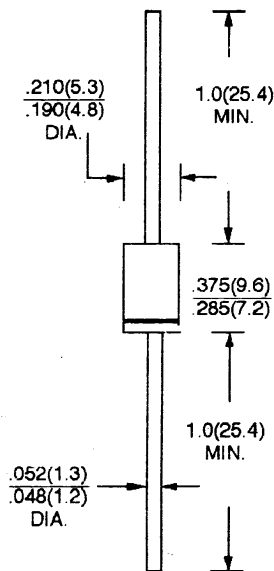
MECHANICAL DATA

- * 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
- * Weight: 1.18 grams

VOLTAGE RANGE

50 to 1000 Volts
CURRENT
3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

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	SYMBOLS	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	150	200	300	400	V
Maximum Average Forward Current .375" (9.5mm) lead length @ $T_A = 55^\circ\text{C}$ (Note 1)	$I_{F(AV)}$	3.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100						A
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	0.95			1.25			V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_R				5.0 50			μA μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	35						nS
Typical Junction Capacitance (Note 3)	C_J	100			50			pF
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150						$^\circ\text{C}$

- NOTES: 1. Each Lead mounted on a $0.8 \times 0.8 \times 0.04$ " ($20 \times 20 \times 1$ mm) copper heat - sink.
2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $t_{RR} = 0.25\text{A}$.
3. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (SF31G THRU SF36G)

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

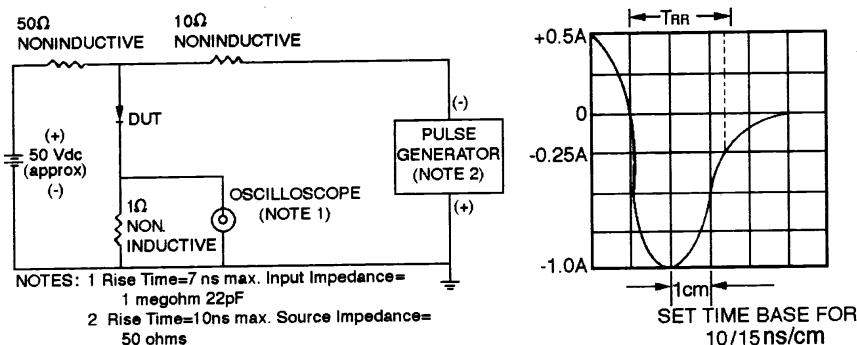


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

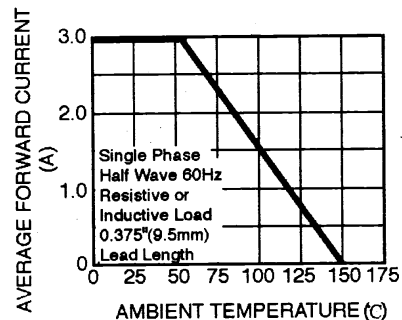


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

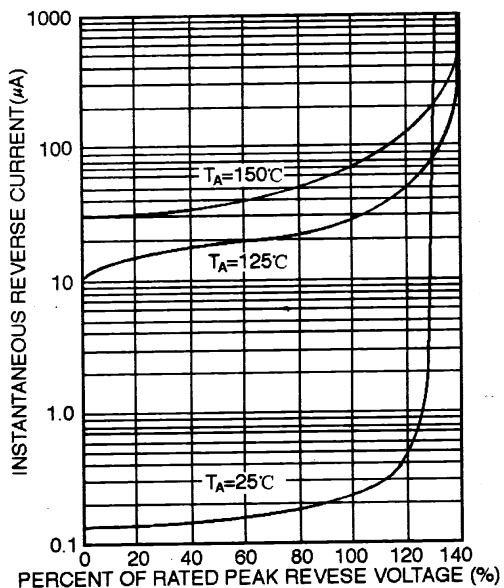


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

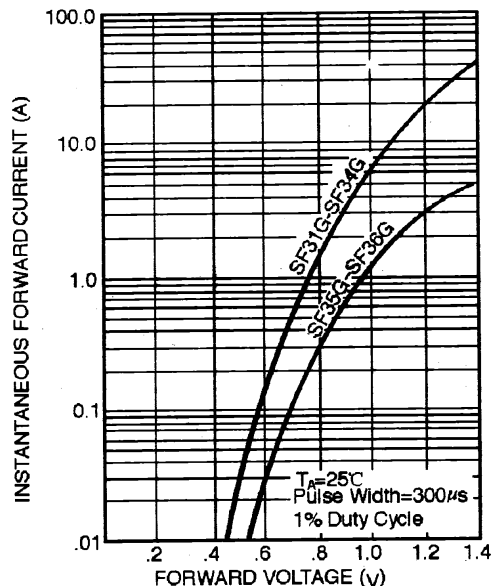


FIG. 5 - MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

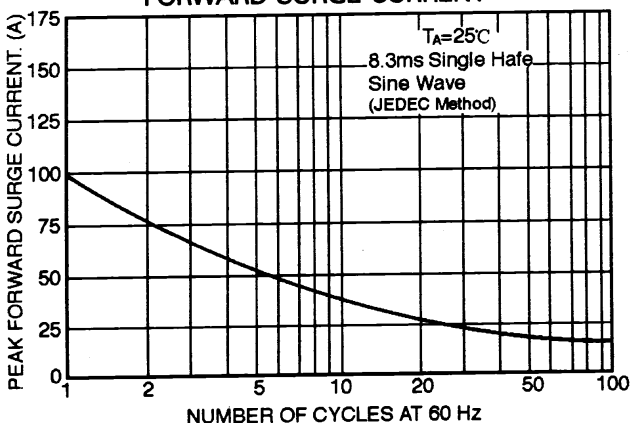


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

