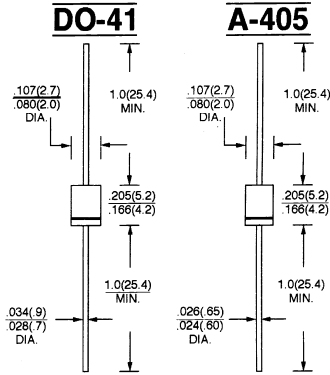




# SF11G THRU SF19G

## GLASS PASSIVATED SUPER FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Low forward voltage drop
- ◆ High 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:** 0.22grams(DO41:0.34grams)

### 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%.

	SYMBOLS	SF11G	SF12G	SF13G	SF14G	SF15G	SF16G	SF18G	SF19G	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	400	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	1000	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_A=55\text{ C}$	$I_{(AV)}$	1.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC)	$I_{FSM}$	30.0								Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.95			1.3		1.7			Volts
Maximum DC reverse current $T_A=25\text{ C}$ at rated DC blocking voltage $T_A=100\text{ C}$	$I_R$	5.0 100								$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	35								ns
Typical junction capacitance (NOTE 2)	$C_J$	40				25				pF
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +150								$^{\circ}\text{C}$

**Note:** 1. Reverse recovery condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATINGS AND CHARACTERISTIC CURVES SF11G THRU SF16G

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

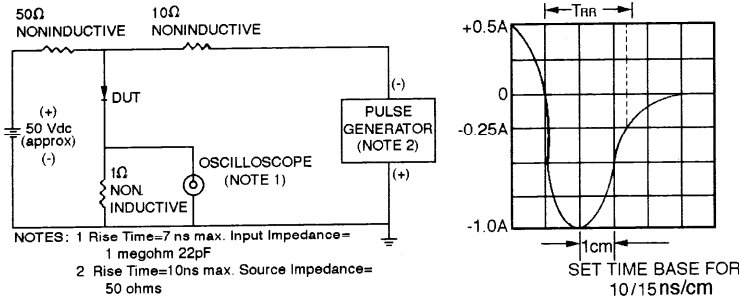


FIG. 2 – TYPICAL FORWARD CURRENT DERATING CURVE

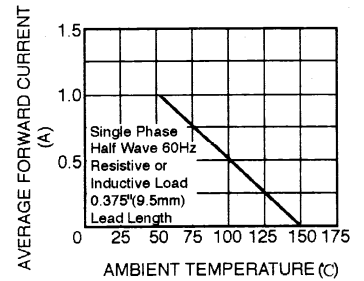


FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

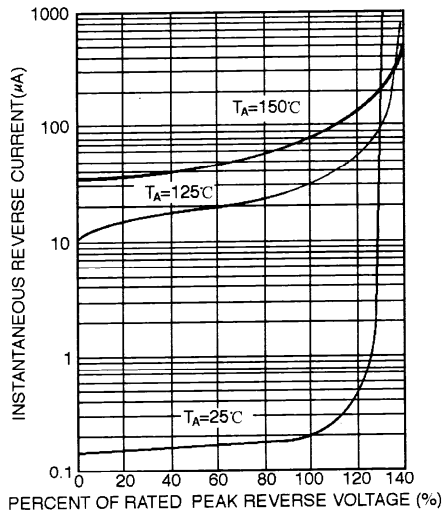


FIG. 4 – TYPICAL FORWARD CHARACTERISTICS

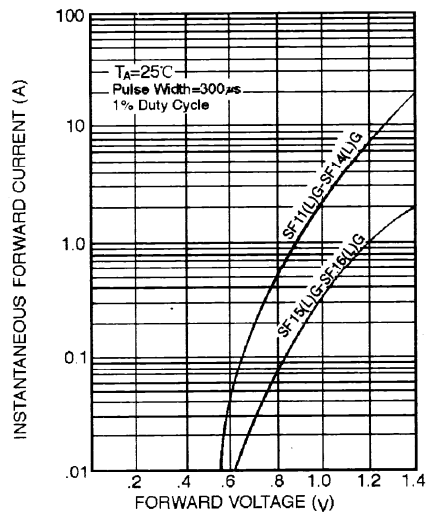


FIG. 5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

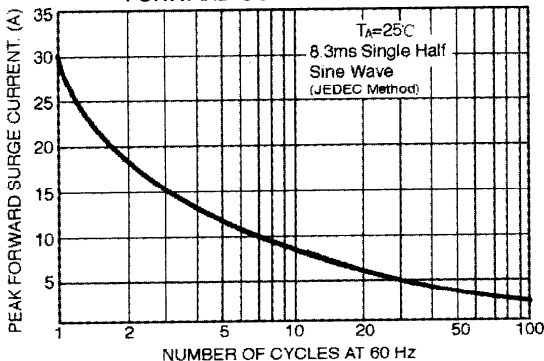


FIG. 6 – TYPICAL JUNCTION CAPACITANCE

