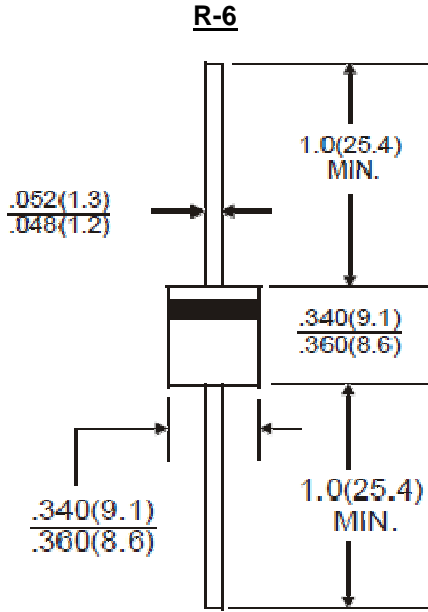




# SF61G THRU SF68G

## GLASS PASSIVATED SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 6.0 Ampere



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Low power loss, high efficiency
- ◆ Low leakage
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High speed switching
- ◆ High current surge
- ◆ High reliability
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

**Case:** R-6, Molded plastic

**Terminals:** Solderable per MIL-STD-750 Method 2026

**Epoxy:** UL94V-0 rate flame retardant

**Polarity:** Color band denotes cathode end

**Approx. Weight:** 0.0719 ounce, 2.04gram

**Mounting Position:** Any

### 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%.

PARAMETER	SYMBOLS	SF61G	SF62G	SF63G	SF64G	SF66G	SF67G	SF68G	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	400	500	600	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	420	350	560	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	400	500	600	Volts
Average Rectified current at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	6							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							Amps
Maximum Forward Voltage at $I_F = 6.0\text{A}$	$V_F$	0.95				1.25	1.85		Volts
Maximum DC reverse current at rated DC blocking voltage at $T_A = 25^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	35					50		nS
Typical Junction Capacitance (NOTE 2)	$C_J$	100							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	27							$^\circ\text{C/W}$
Operating Junction & Storage Temperature Range	$T_J, T_{STG}$	-55 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.

3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

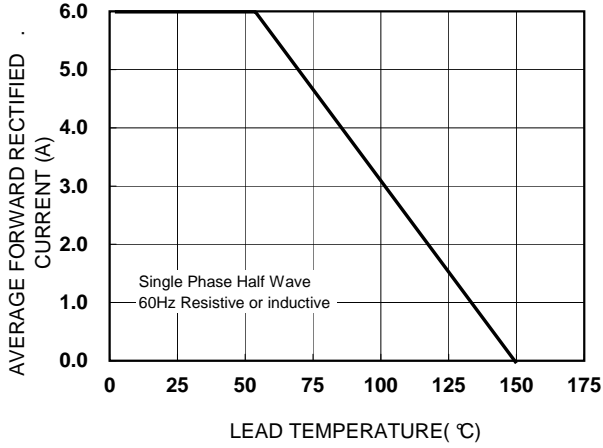


FIG. 2--MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

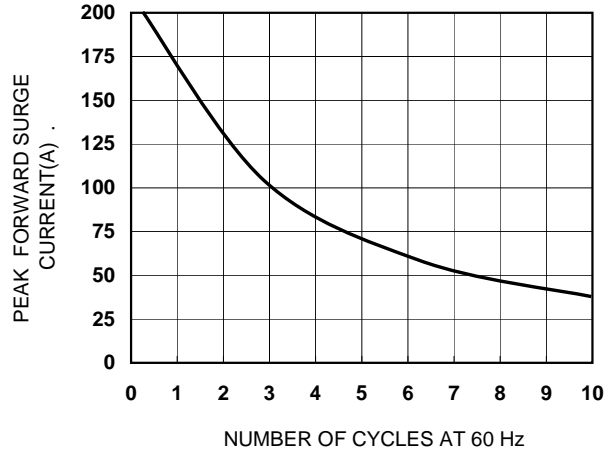


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

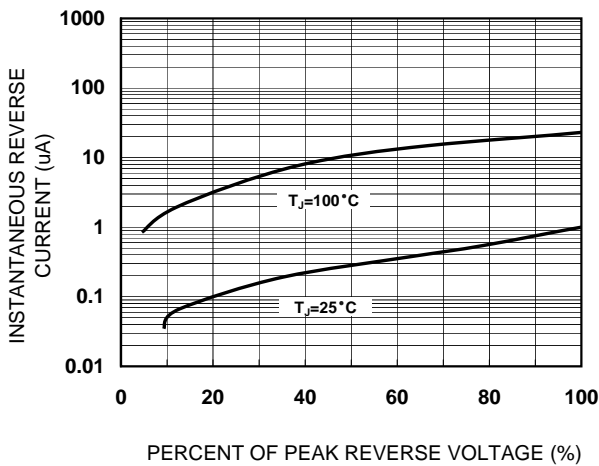


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

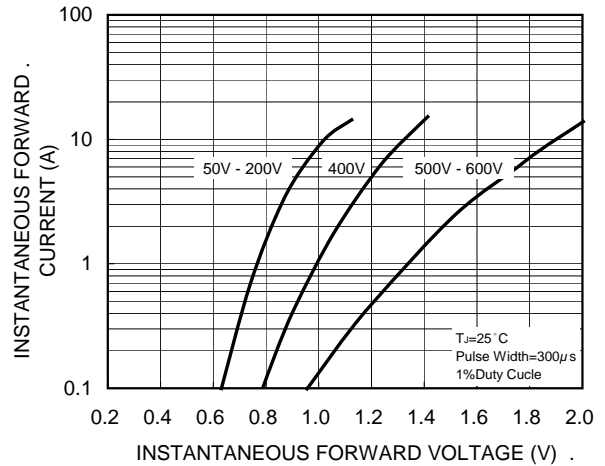


FIG. 5-TYPICAL JUNCTION CAPACITANCE

