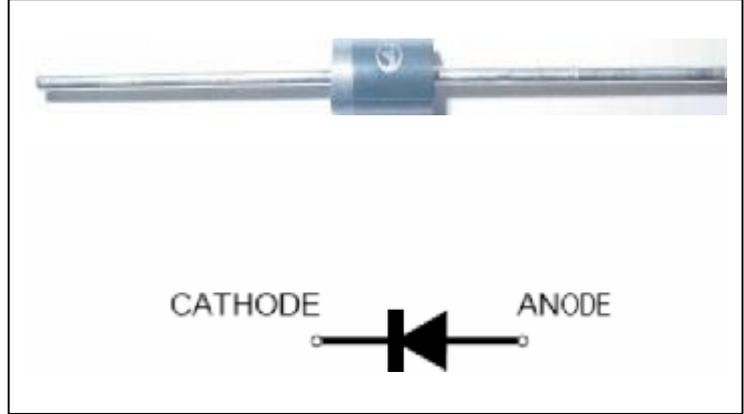


SF61G thru SF68G

Glass Passivated Junction Ultra Fast Rectifiers
Reverse Voltage 50 to 600V Forward Current 6.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Glass passivated chip
- * Capable of meeting environmental standards of MIL-S-19500
- * For use in high frequency rectifier circuits
- * Fast switching for high efficiency
- * High temperature soldering guaranteed: 260°C/10 seconds
- * 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



Mechanical Data

Case: JEDEC DO-201AD, molded plastic

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.038 oz., 1.03 g

Handling precaution: None

1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF68G	Unit
Marking spec		SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF68G	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Maximum DC blocking voltage temperature	T_A	150							°C
Typical thermal resistance (Note 2)	$R_{\theta JA}$	20							°C/W
Operating junction temperature range	T_J	-50 to +150							°C
Storage temperature range	T_{STG}	-50 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF68G	Unit
Maximum instantaneous forward voltage at 6.0A	V_F	0.95			1.25		1.7		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	I_R				10		100		μA
Typical reverse recovery time (Note 1)	t_{rr}				35				ns
Typical junction capacitance at 4.0V, 1MHz	C_J	50			30				PF

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$

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

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2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

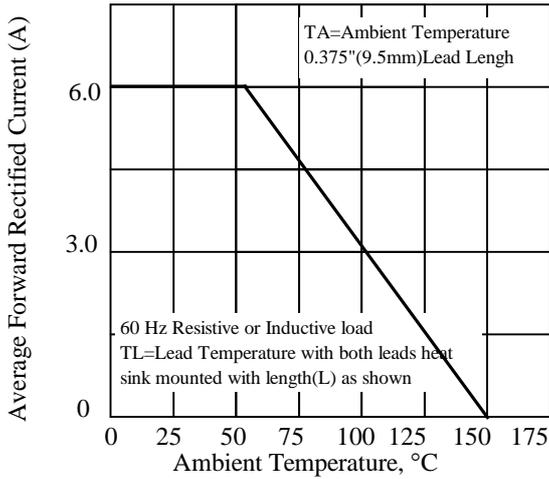


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

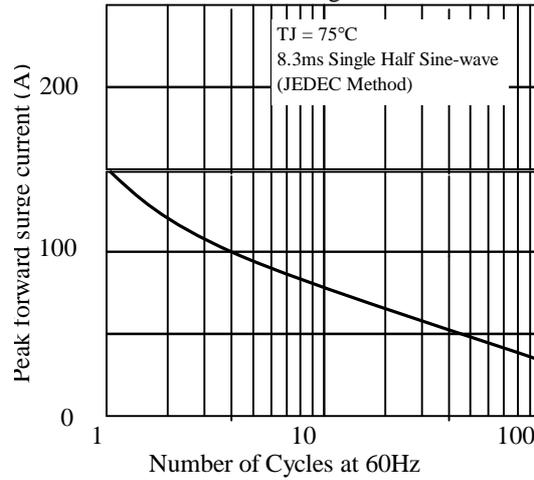


Fig. 3 - Typical Instantaneous Forward Characteristics

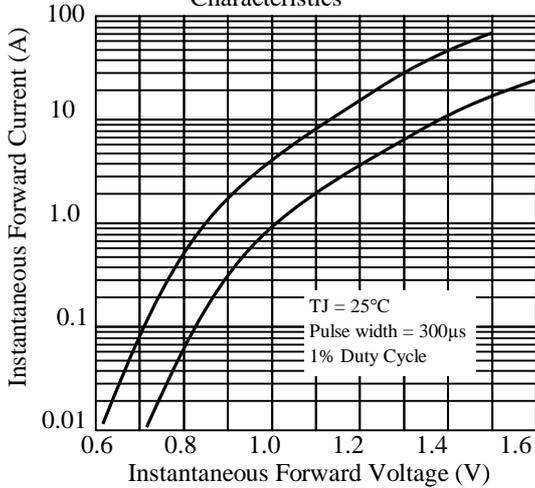


Fig. 4 - Typical Reverse Characteristics

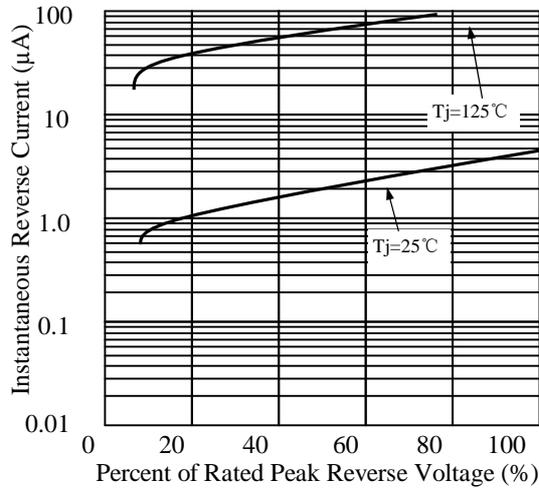


Fig. 5 - typical transient thermal impedance

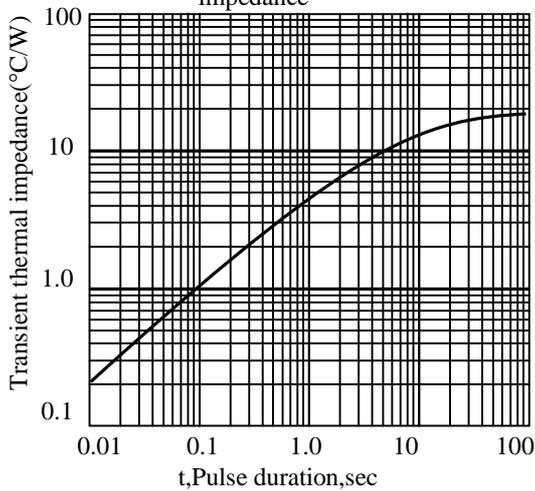
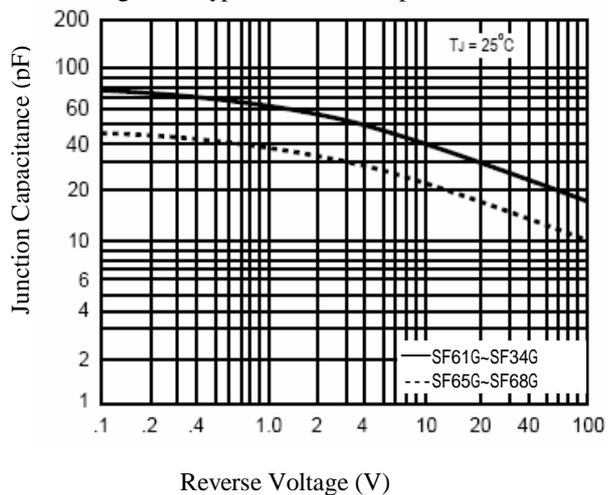


Fig. 6 - Typical Junction Capacitance



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3. dimension:

