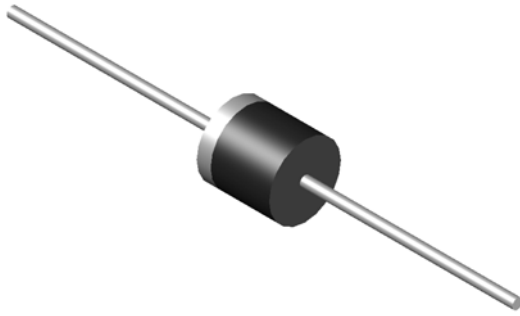


Super Fast Recovery Rectifier

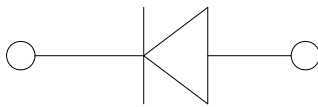


Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.



Mechanical Data

- **Package:** R-6
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF67G	SF68G
Device marking code			SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF67G	SF68G
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Maximum RMS Voltage	VRMS	V	35	70	105	140	210	280	350	420
Maximum DC blocking Voltage	VDC	V	50	100	150	200	300	400	500	600
Average Forward Current @60Hz sine wave, Resistance load, Ta =65°C	IF(AV)	A	6.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	150							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			300							
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I²t	A²s	94							
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	102				58		46	
Storage Temperature	Tstg	°C	-55 ~ +150							
Junction Temperature	Tj	°C	-55 ~ +150							

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF67G	SF68G
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=6.0A	0.95				1.3		1.7	
Maximum DC reverse current at rated DC blocking voltage per diode	IR	µA	Tj=25°C	2.5							
			Tj=125°C	100							
Maximum reverse recovery time	tr	ns	IF=0.5A, IR=1.0A, IIR=0.25A	35							



SF61G THRU SF68G

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF61G	SF62G	SF63G	SF64G	SF65G	SF66G	SF67G	SF68G
Typical Thermal Resistance	R _{θJ-A}	°C/W	12							

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SF61G~SF68G	D1	Approximate 1.95	500	500	5000	Tape
SF61G~SF68G	C1	Approximate 1.95	100	100	5000	Bulk

■ Characteristics(Typical)

FIG.1: I_o-T_a Curve

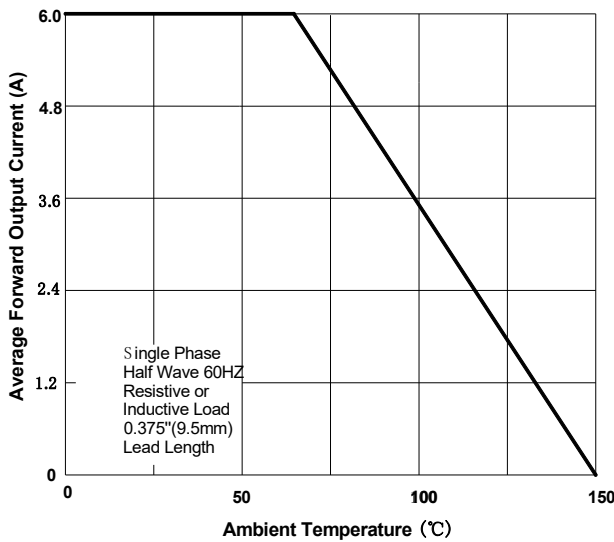


FIG.2: Forward Surge Current Capability

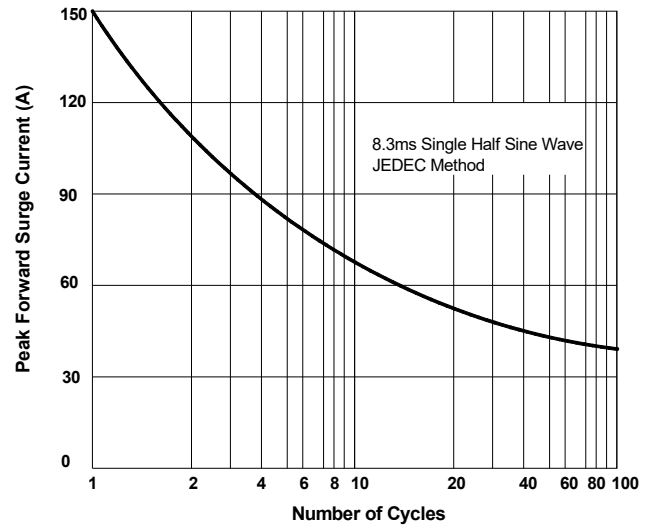


FIG.3: Forward Voltage

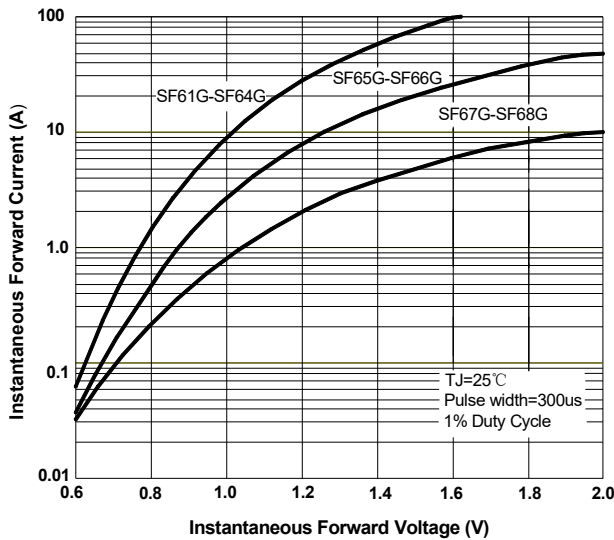
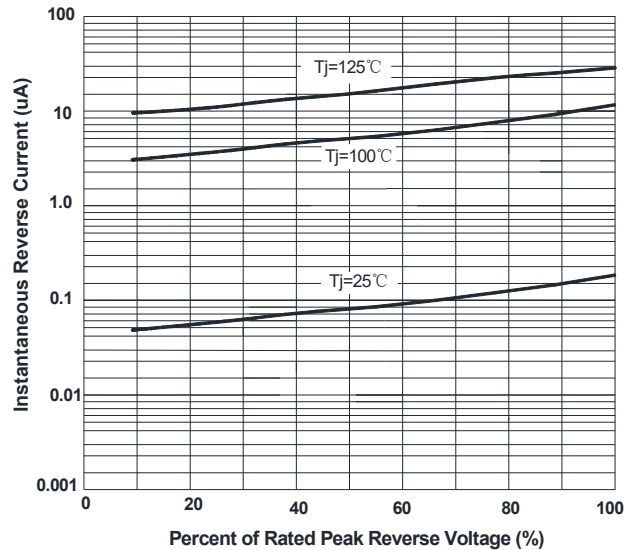


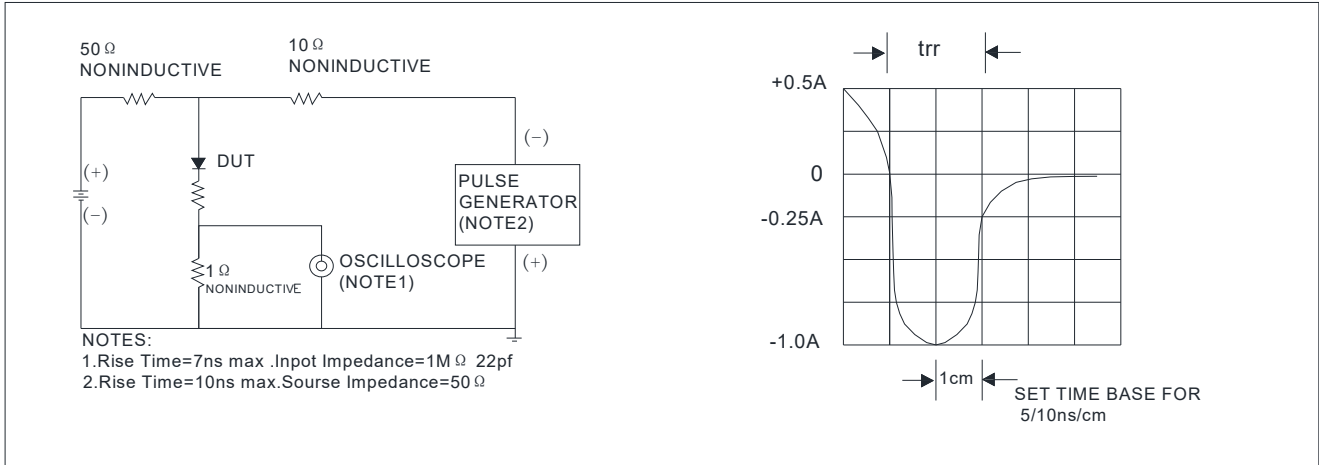
FIG.4: Typical Reverse Characteristics



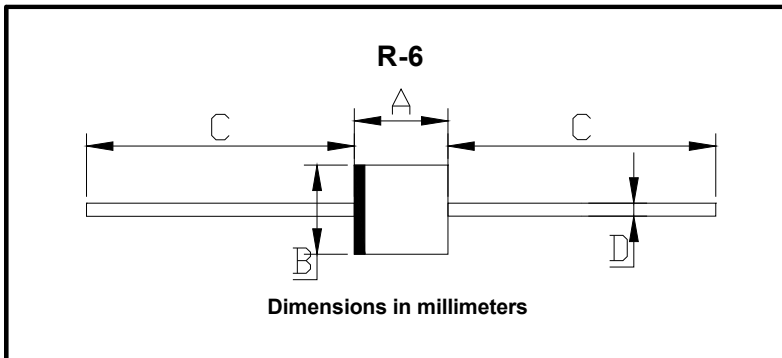


SF61G THRU SF68G

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



R-6		
Dim	Min	Max
A	8.60	9.10
B	8.60	9.10
C	25.4	/
D	1.20	1.32



SF61G THRU SF68G

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.