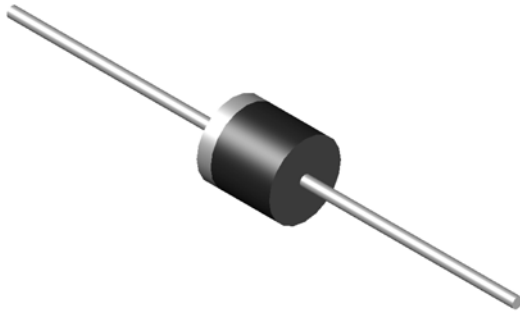


Super Fast Recovery Rectifier

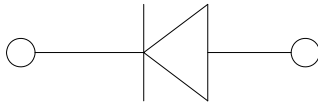


Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- 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 (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF61	SF62	SF63	SF64	SF65	SF66	SF67	SF68
Device marking code			SF61	SF62	SF63	SF64	SF65	SF66	SF67	SF68
Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Average Forward Current @60Hz sine wave, Resistance load, T _a =50°C	I _{F(AV)}	A	6.0							
Surge(Non-repetitive)Forward Current @ 60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	150							
Storage Temperature	T _{stg}	°C	-55 ~ +150							
Junction Temperature	T _j	°C	-55 ~ +125							

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SF61	SF62	SF63	SF64	SF65	SF66	SF67	SF68
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =6.0A	0.95			1.3		1.7		
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _a =25°C	5							
			T _a =100°C	150							
Reverse Recovery time	t _r	ns	I _F =0.5A I _R =1A I _{RR} =0.25A	35							
Typical junction capacitance	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	100				80			



SF61 THRU SF68

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF61	SF62	SF63	SF64	SF65	SF66	SF67	SF68
Thermal Resistance	R θ J-A	$^\circ\text{C}/\text{W}$	10							

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SF61~SF68	D1	Approximate 1.95	500	500	5000	Tape
SF61~SF68	C1	Approximate 1.95	100	100	5000	Bulk

■ Characteristics(Typical)

FIG.1: I_o - T_a Curve

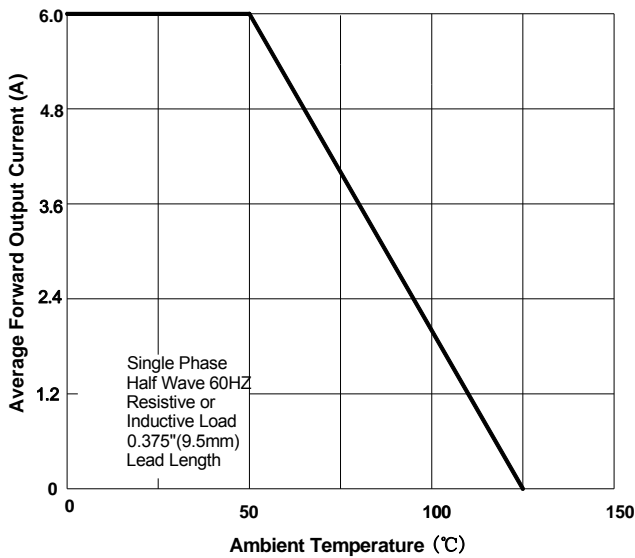


FIG.2: Surge Forward Current Capability

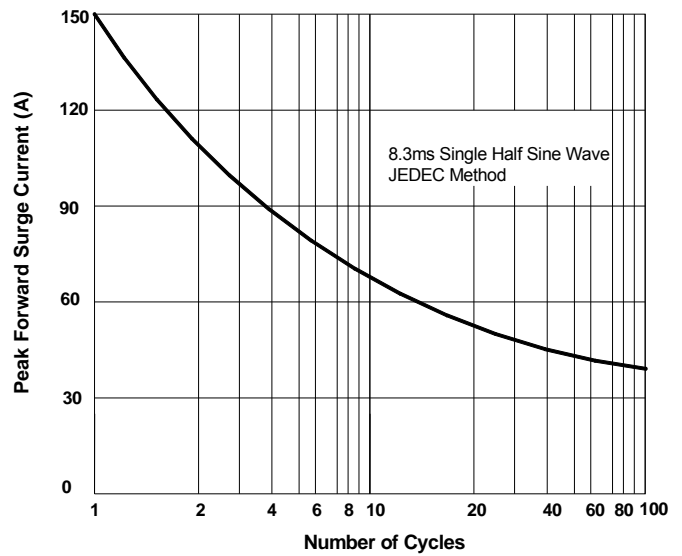


FIG.3: Forward Voltage

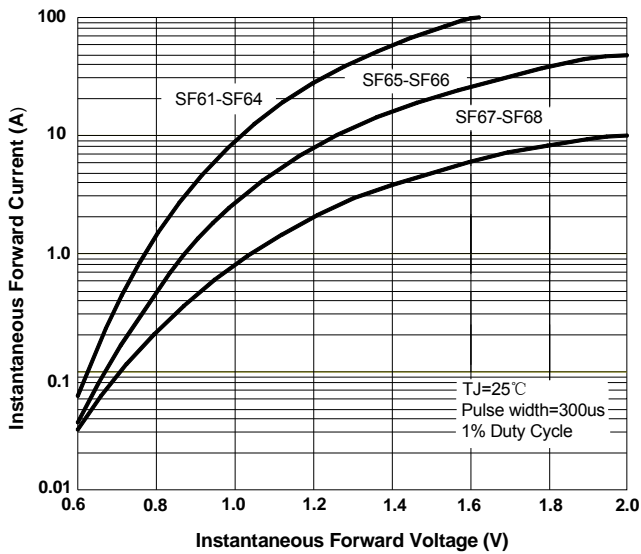
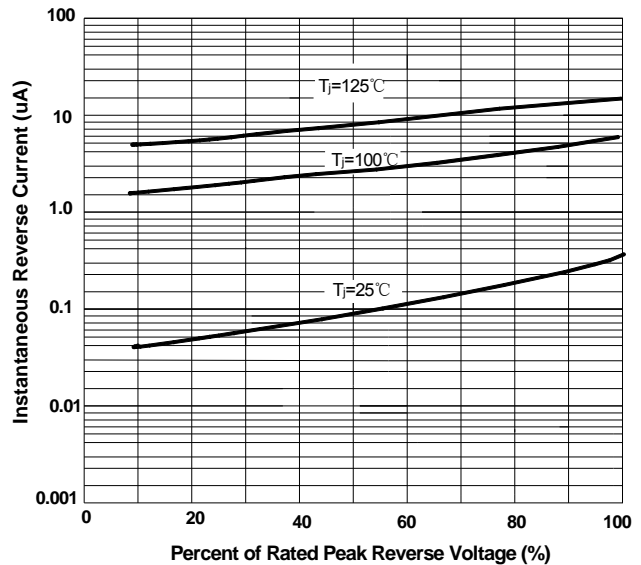


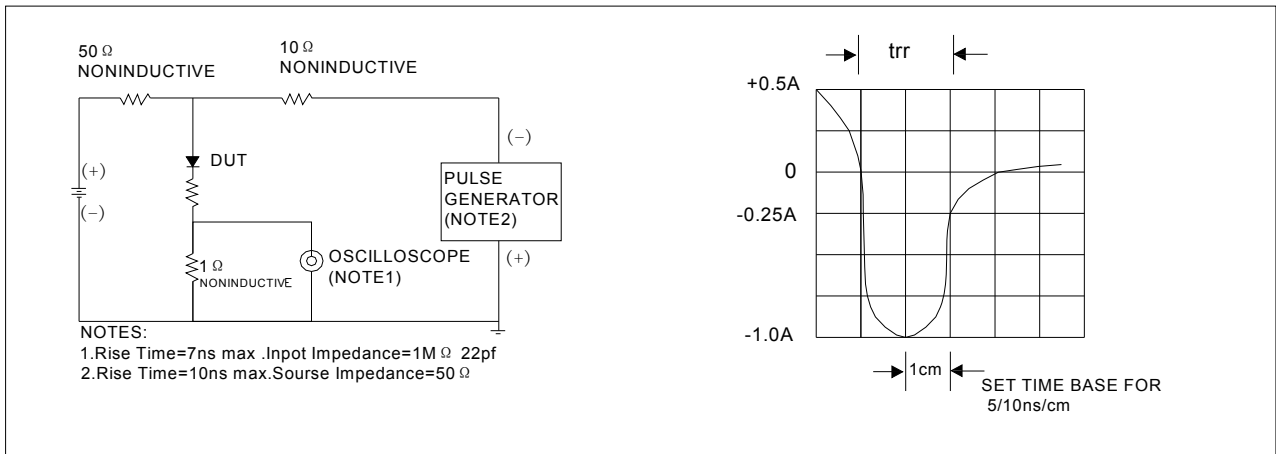
FIG.4: Typical Reverse Characteristics



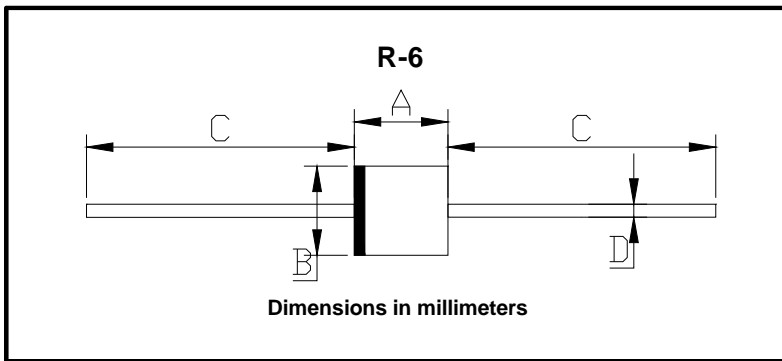


SF61 THRU SF68

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



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