

Super Fast Rectifier

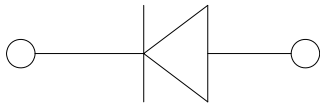


Features

- 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:** DO-204AC(DO-15)
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	SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28
Device marking code			SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28
Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Average Forward Current @60Hz sine wave, Resistance load, T _a =60°C	I _{F(AV)}	A	2.0							
Surge(Non-repetitive)Forward Current @ 60Hz Half-sine wave,1 cycle, T _a =25°C	I _{FSM}	A	50							
Storage Temperature	T _{stg}	°C	-55 ~+150							
Junction Temperature	T _j	°C	-55~+150							

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	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 =125°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.	50				30			



SF21 THRU SF28

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

PARAMETER	SYMBOL	UNIT	SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28
Thermal Resistance	R _{θJ-A}	°C/W	50							

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SF21~SF28	D1	Approximate 0.38	3000	3000	30000	Tape
SF21~SF28	C1	Approximate 0.38	500	500	25000	Bulk

■ Characteristics(Typical)

FIG.1: Io-Ta Curve

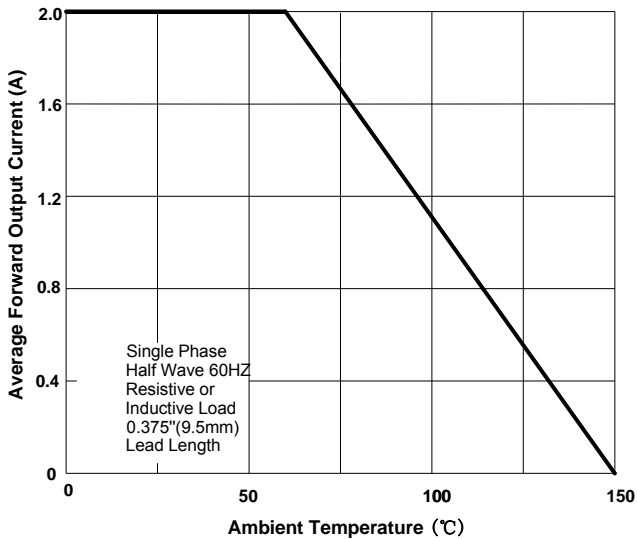


FIG.2: Surge Forward Current Capability

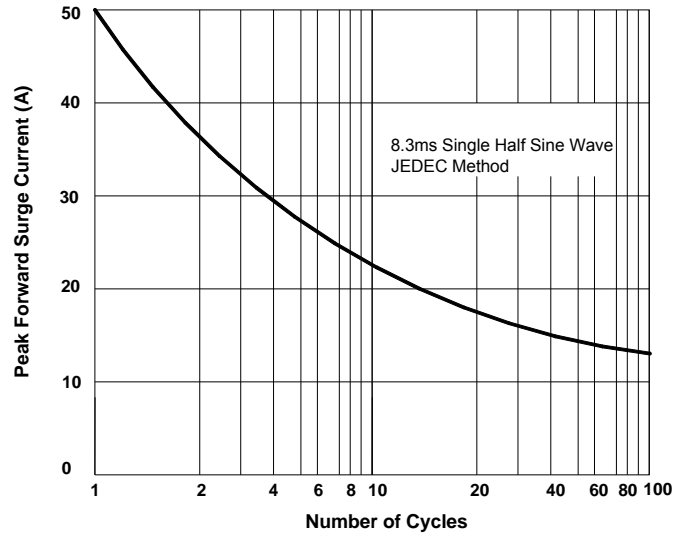


FIG.3: Forward Voltage

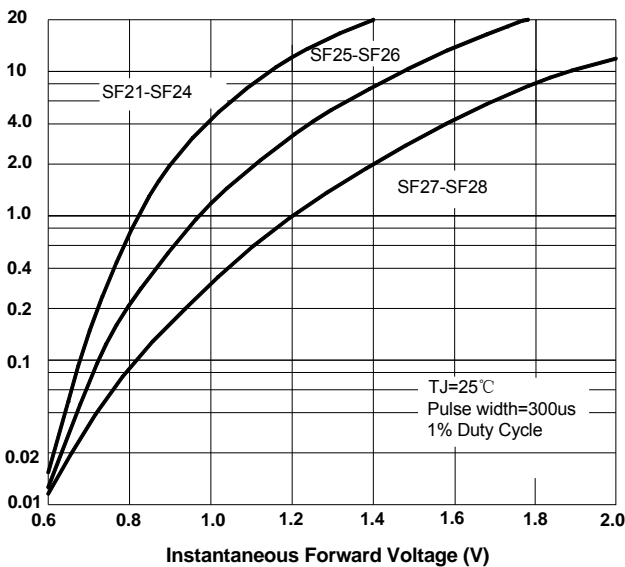


FIG.4: Typical Reverse Characteristics

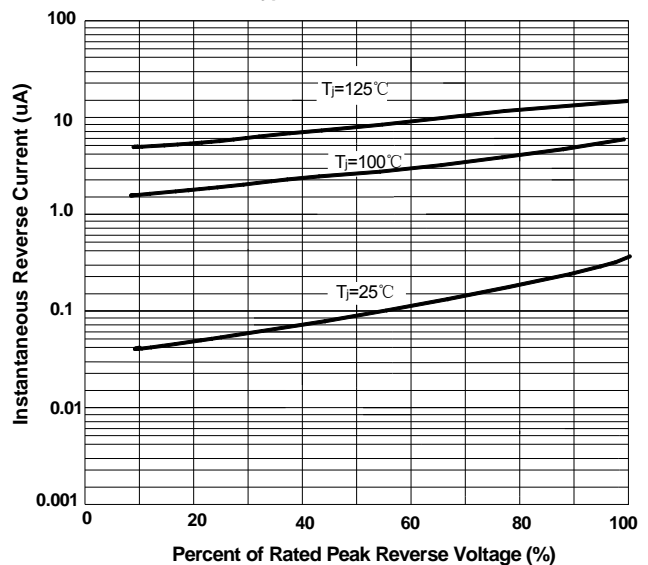
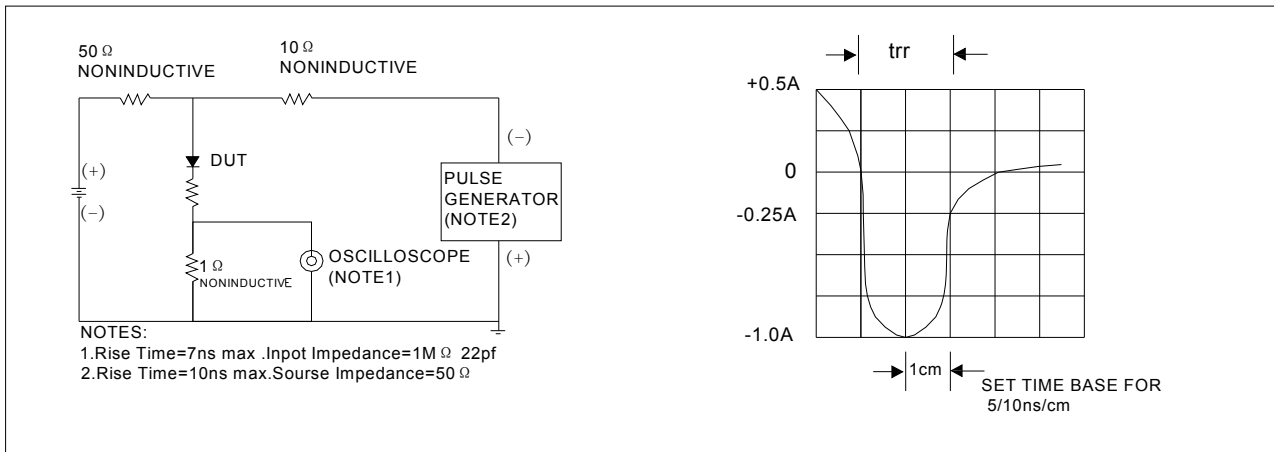
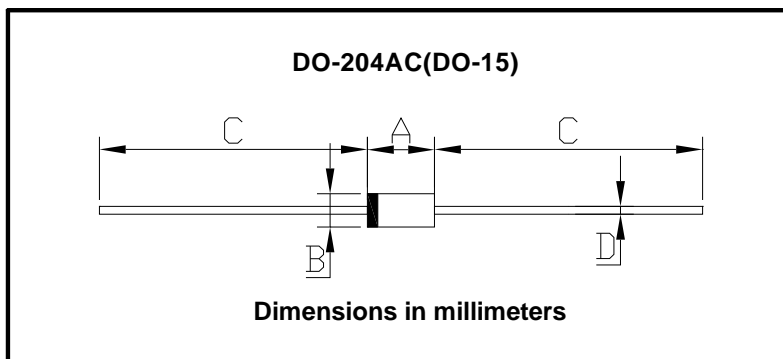


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



DO-204AC(DO-15)		
Dim	Min	Max
A	5.80	7.60
B	2.60	3.60
C	25.4	/
D	0.70	0.90



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.