

## Super Fast Recovery Rectifier

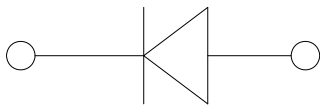


### Features

- 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:** 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF29G
Device marking code			SF29G
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	V	800
Maximum RMS Voltage	$V_{RMS}$	V	560
Maximum DC blocking Voltage	$V_{DC}$	V	800
Average Forward Current @60Hz sine wave, Resistance load, Ta =50°C	$I_{F(AV)}$	A	2.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	$I_{FSM}$	A	50
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			100
Current squared time @1ms≤t8.3≤ms Tj=25°C, Rating of per diode	$I^2t$	A <sup>2</sup> s	10.375
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	$C_j$	pF	13
Storage Temperature	$T_{stg}$	°C	-55 ~ +150
Junction Temperature	$T_j$	°C	-55 ~ +150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SF29G
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_{FM}=2.0A$	1.7
Maximum DC reverse current at rated DC blocking voltage per diode	$I_R$	μA	$T_j=25^\circ C$	2.5
			$T_j=125^\circ C$	100
Maximum reverse recovery time	$t_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_r=0.25A$	35



# SF29G

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SF29G
Typical Thermal Resistance	R <sub>θJA</sub>	°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
SF29G	D1	Approximate 0.38	3000	3000	30000	Tape
SF29G	C1	Approximate 0.38	500	500	25000	Bulk

## ■ Characteristics(Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

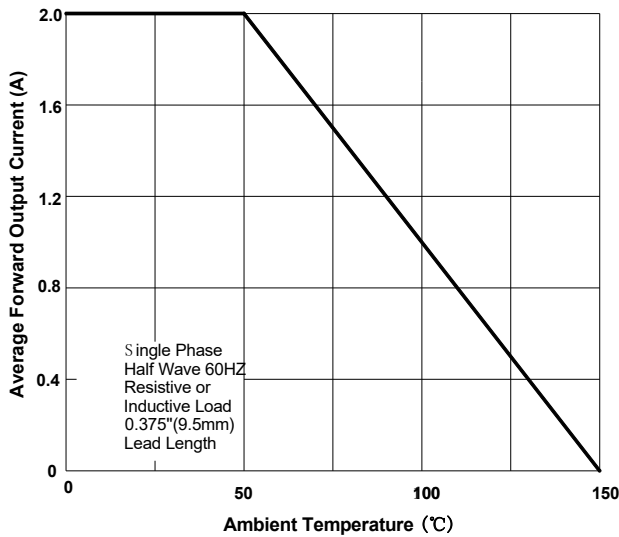


FIG.2: Forward Surge Current Capability

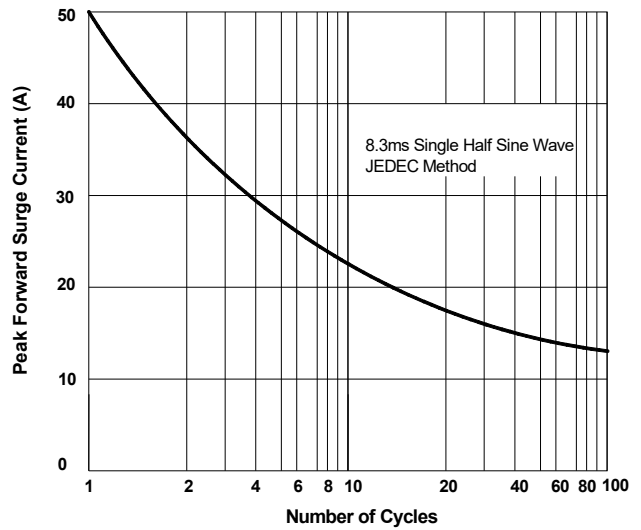


FIG.3: Forward Voltage

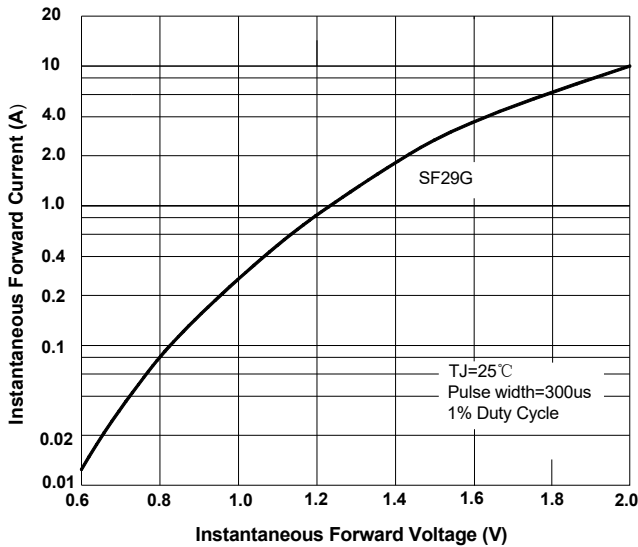


FIG.4: Typical Reverse Characteristics

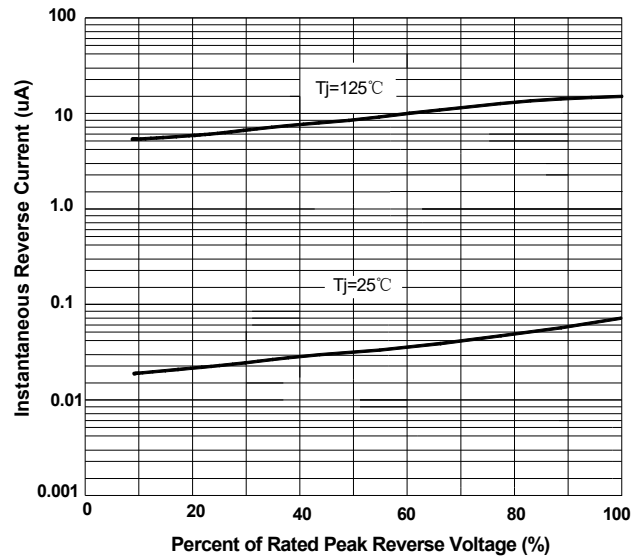
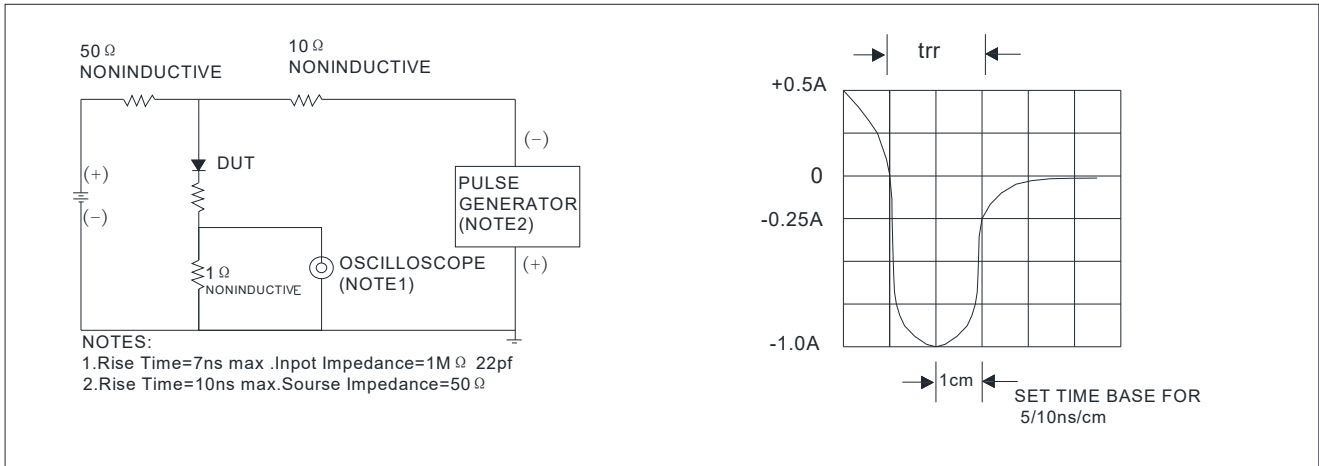
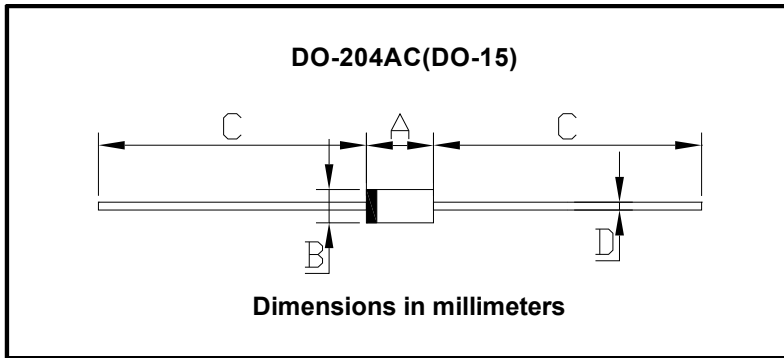


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



## ■ 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



## SF29G

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