



# 5.0Amp. Glass Passivated Super Fast Rectifiers

## SF51G thru SF56G

### Features

- High current capability
- High reliability
- Low forward voltage drop
- High surge current capability

### Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Indicated by cathode band.
- Epoxy : UL94V-0 rate flame retardant
- Weight: 0.041 oz., 1.15 gram

### Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. )

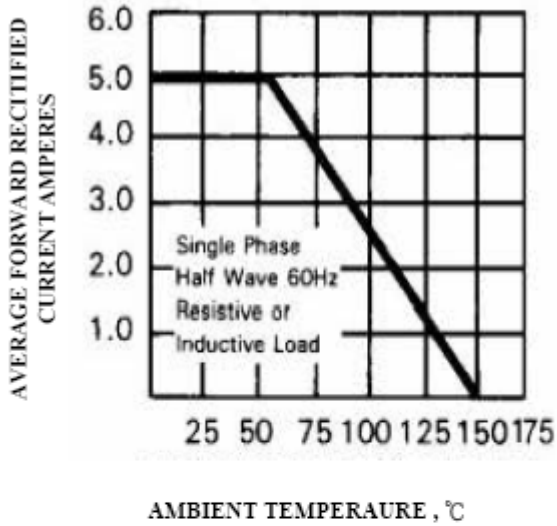
Parameter	Symbol	Type								Units
		SF 51G	SF 52G	SF 53G	SF 54G	SF 55G	SF 56G	SF 57G	SF 58G	
Repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V <sub>R</sub>	50	100	150	200	300	400	500	600	V
Maximum instantaneous forward voltage, I <sub>F</sub> =5A (Note 1)	V <sub>F</sub>	0.95			1.3		1.7			V
Reverse Recovery Time	t <sub>rr</sub>	35								ns
Average forward rectified current @T <sub>A</sub> =55°C	I <sub>FAV</sub>	5								A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	125								A
Maximum DC reverse current V <sub>R</sub> =V <sub>RRM</sub> , T <sub>A</sub> =25°C (Note 1) V <sub>R</sub> =V <sub>RRM</sub> , T <sub>A</sub> =100°C (Note 1)	I <sub>R</sub>	5 100								μA μA
Storage temperature	T <sub>stg</sub>	-55 ~ +150								°C
Operating temperature	T <sub>J</sub>	-55 ~ +150								°C

Notes : 1. Pulse test, pulse width=300 μ sec, 2% duty cycle

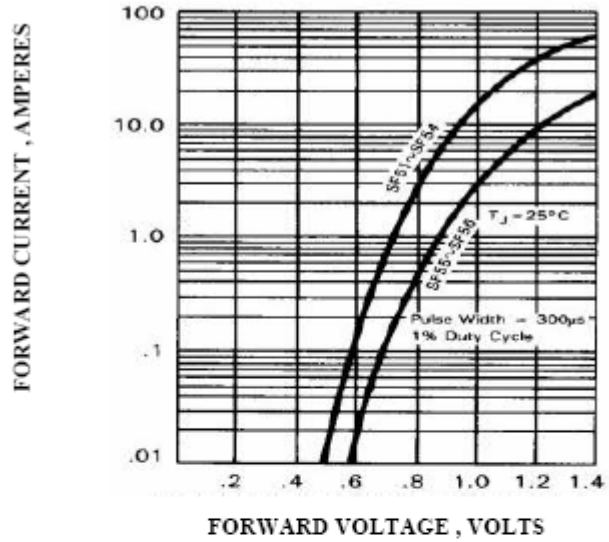
2 . Reverse recovery test condition: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

**Characteristic Curves**

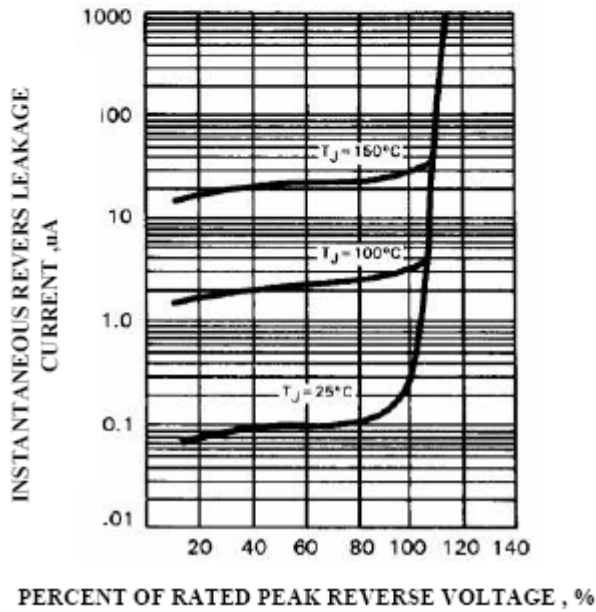
**Fig.1- Forward Current Derating Curve**



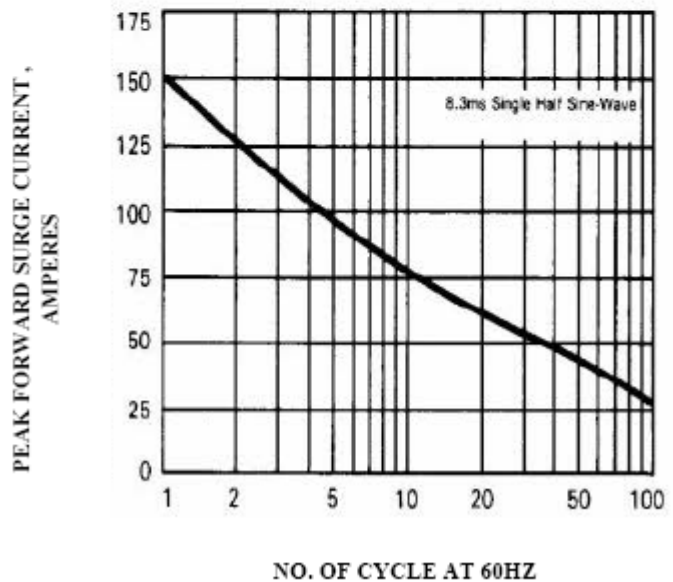
**Fig.2- Typical Instantaneous Forward Characteristic**



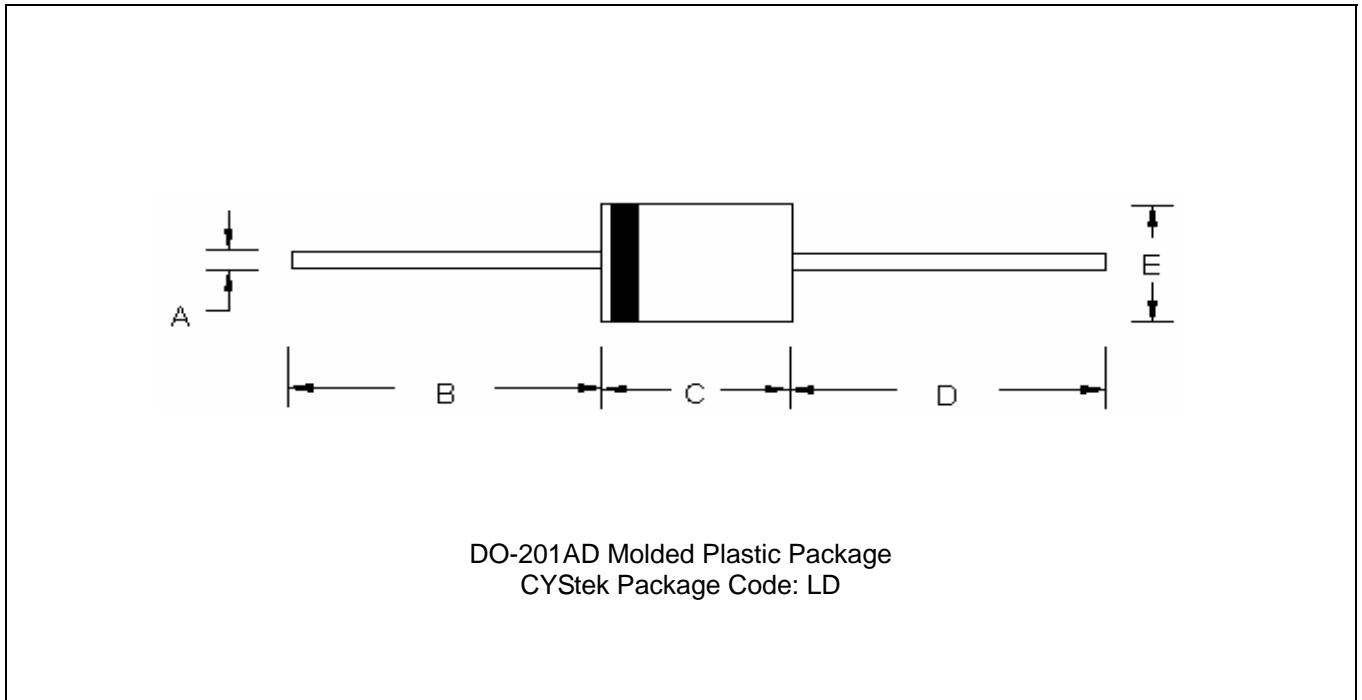
**Fig.3- Typical Reverse**



**Fig.4- Maximum Non -Repetitive Surge Current**



## DO-201AD Dimension



DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	φ0.048	φ0.052	φ1.20	φ1.30	D	1.000	-	25.40	-
B	1.000	-	25.40	-	E	φ0.197	φ0.220	φ5.00	φ5.60
C	0.285	0.375	7.20	9.50					

Notes : 1. Controlling dimension : millimeters.  
 2. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 3. If there is any question with packing specification or packing method, please contact your local CYStek sales office.

**Material :**

- Lead : Axial leads, solderable per MIL-STD-750, Method 2026 guaranteed.
- Mold Compound : Epoxy resin family, flammability solid burning class: UL94V-0

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