



3.0Amp. Glass Passivated Super Fast Rectifiers

SF31G thru SF38G

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 31G | SF 32G | SF 33G | SF 34G | SF 35G | SF 36G | SF 37G | SF 38G | |
| Repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC blocking voltage | V _R | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum instantaneous forward voltage, I _F =3A (Note 1) | V _F | 0.95 | | | 1.3 | | 1.7 | | | V |
| Reverse Recovery Time | t _{rr} | 35 | | | | | | | | ns |
| Average forward rectified current @T _A =95°C | I _{FAV} | 3 | | | | | | | | A |
| Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method) | I _{FSM} | 125 | | | | | | | | A |
| Maximum DC reverse current V _R =V _{RRM} , T _A =25°C (Note 1) V _R =V _{RRM} , T _A =100°C (Note 1) | I _R | 5 100 | | | | | | | | μA μA |
| Storage temperature | T _{stg} | -55 ~ +150 | | | | | | | | °C |
| Operating temperature | T _J | -55 ~ +150 | | | | | | | | °C |

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

2 . Reverse recovery test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Characteristic Curves

Fig.1- Forward Current Derating Curve

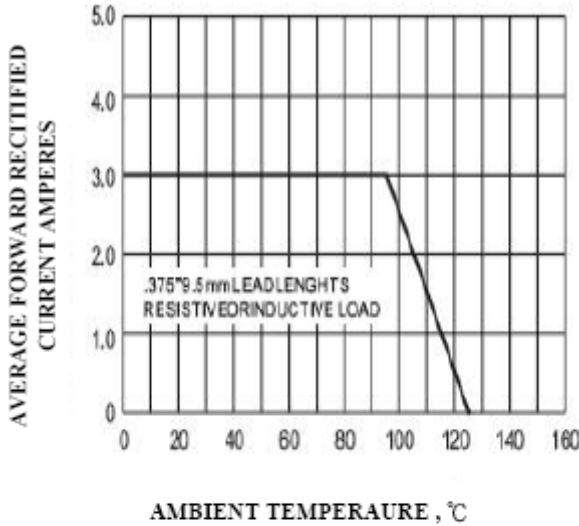


Fig.2- Typical Instantaneous Forward Characteristic

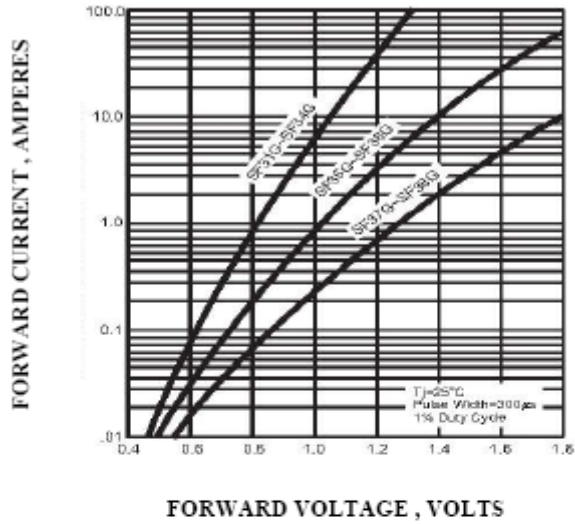


Fig.3- Typical Reverse

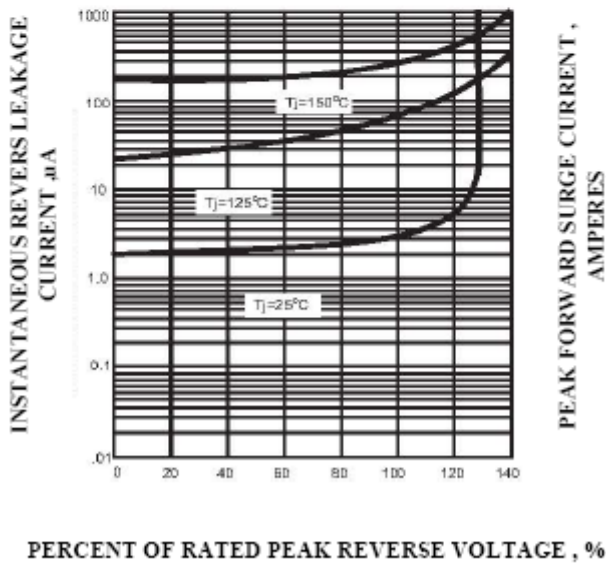
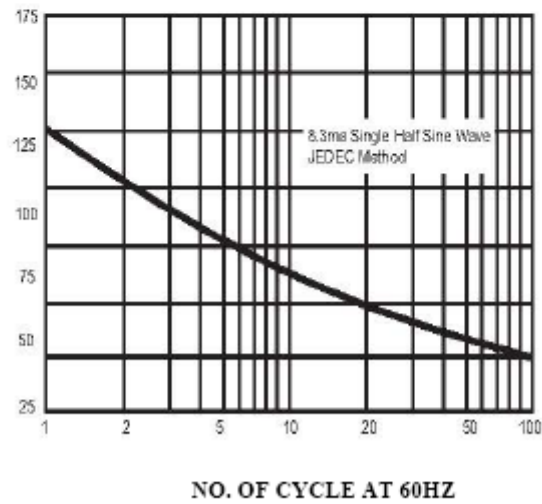
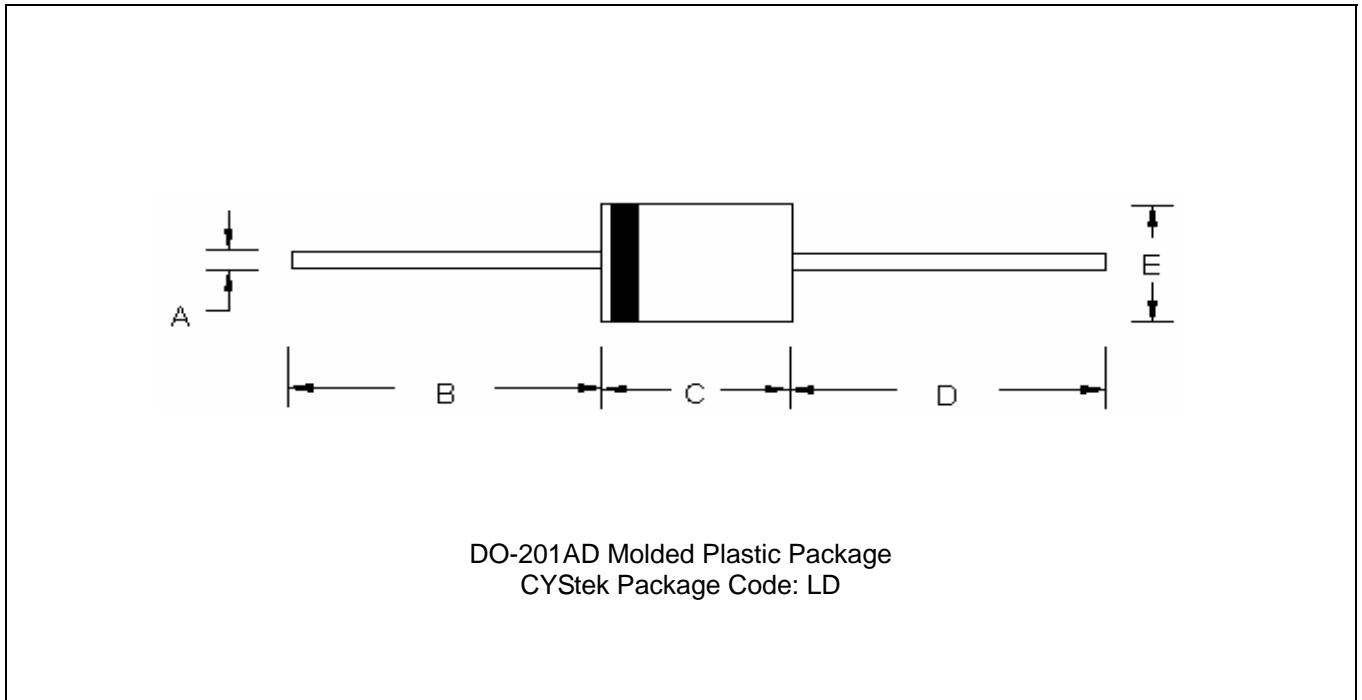


Fig.4- Maximum Non -Repetitive Surge Current



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-202, Method 208 guaranteed.
- Mold Compound : Epoxy resin family, flammability solid burning class: UL94V-0

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