### Zibo Seno Electronic Engineering Co., Ltd.



## BY550-50 - BY550-1000





5.0A STANDARD DIODE

#### **Features**

- **Diffused Junction**
- Low Forward Voltage Drop
- **High Current Capability**
- High Reliability
- High Surge Current Capability

# D

#### **Mechanical Data**

Case: Molded Plastic

Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band Weight: 1.2 grams (approx.) Mounting Position: Any

Marking: Type Number

Epoxy: UL 94V-O rate flame retardant

Lead Free: For RoHS / Lead Free Version

| DO-201AD             |      |      |  |  |  |  |  |
|----------------------|------|------|--|--|--|--|--|
| Dim                  | Min  | Max  |  |  |  |  |  |
| Α                    | 24.5 | _    |  |  |  |  |  |
| В                    | 7.20 | 9.50 |  |  |  |  |  |
| С                    | 1.10 | 1.30 |  |  |  |  |  |
| D                    | 5.00 | 5.60 |  |  |  |  |  |
| All Dimensions in mm |      |      |  |  |  |  |  |

#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic  | Symbol             | BY550-<br>50 | BY550-<br>100 | BY550-<br>200 | BY550-<br>400 | BY550-<br>600 | BY550-<br>800 | BY550-<br>1000 | Unit |
|---|--------------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | VRRM<br>VRWM<br>VR | 50           | 100           | 200           | 400           | 600           | 800           | 1000           | ٧    |
| RMS Reverse Voltage   | VR(RMS)            | 35           | 70            | 140           | 280           | 420           | 560           | 700            | V    |
| Average Rectified Output Current (Note 1) @T <sub>A</sub> = 50°C  | lo                 | 5.0          |               |               |               |               | А             |                |      |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | IFSM               | 300          |               |               |               |               | А             |                |      |
| Forward Voltage @I <sub>F</sub> = 5.0A  | VFM                | 1.0          |               |               |               |               | V             |                |      |
|   | lгм                | 2.0<br>100   |               |               |               |               | μA            |                |      |
| Typical Thermal Resistance Junction to Ambient (Note 1)   | $R_{	heta}$ JA     | 10           |               |               |               | °C/W          |               |                |      |
| Operating Temperature Range   | Tj                 | -55 to +150  |               |               |               |               | °C            |                |      |
| Storage Temperature Range   | Тѕтс               |              |               | -             | 55 to +15     | 0             |               |                | °C   |

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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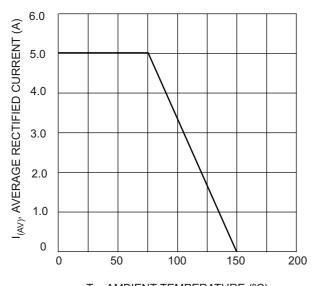


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T<sub>j</sub> = 25°C



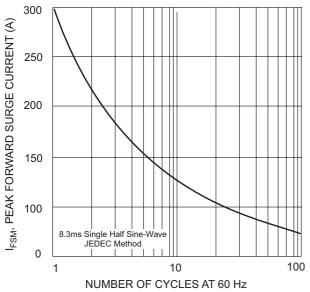


100 IF, INSTANTANEOUS FORWARD CURRENT (A) 10 1.0 Pulse Width = 300 ms 2% Duty Cycle 0.1 0.8

V<sub>E</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 2 Typical Forward Characteristics

TA, AMBIENT TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



C<sub>i</sub>, JUNCTION CAPACITANCE (pF) 100 10 10 100

Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current