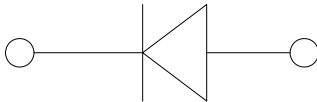
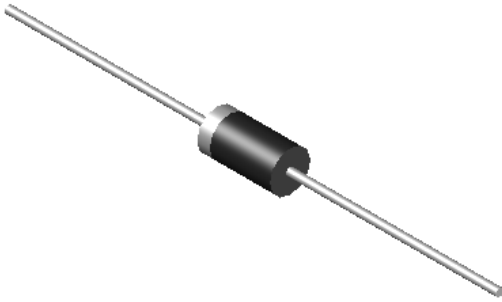




## General Purpose Rectifier



## Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 275 °C max. 7 s, per JESD 22-B106

## Mechanical Data

- **Package:** DO-201AD(DO-27)  
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 cathode end

■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                | SYMBOL             | UNIT | BY251     | BY252 | BY253 | BY254 | BY255 |
|------------------------------------------------------------------------------------------|--------------------|------|-----------|-------|-------|-------|-------|
| Device marking code                                                                      |                    |      | BY251     | BY252 | BY253 | BY254 | BY255 |
| Repetitive Peak Reverse Voltage                                                          | VRRM               | V    | 200       | 400   | 600   | 800   | 1300  |
| Average Forward Current @60Hz sine wave, Resistance load, T <sub>a</sub> =50°C           | I <sub>F(AV)</sub> | A    | 3.0       |       |       |       |       |
| Surge(Non-repetitive)Forward Current @ 60Hz Half-sine wave,1 cycle, T <sub>a</sub> =25°C | IFSM               | A    | 150       |       |       |       |       |
| Storage Temperature                                                                      | T <sub>stg</sub>   | °C   | -55 ~+150 |       |       |       |       |
| Junction Temperature                                                                     | T <sub>j</sub>     | °C   | -55~+125  |       |       |       |       |

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

| PARAMETER                                                         | SYMBOL            | UNIT | TEST CONDITIONS                                            | BY251 | BY252 | BY253 | BY254 | BY255 |
|-------------------------------------------------------------------|-------------------|------|------------------------------------------------------------|-------|-------|-------|-------|-------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V    | I <sub>FM</sub> =3.0A                                      | 1.0   |       |       |       |       |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM1</sub> | μA   | T <sub>a</sub> =25°C                                       | 2.5   |       |       |       |       |
|                                                                   | I <sub>RRM2</sub> |      | T <sub>a</sub> =100°C                                      | 50    |       |       |       |       |
| Typical junction capacitance                                      | C <sub>j</sub>    | pF   | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | 50    |       |       |       |       |

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

| PARAMETER                   | SYMBOL           | UNIT | BY251 | BY252 | BY253 | BY254 | BY255 |
|-----------------------------|------------------|------|-------|-------|-------|-------|-------|
| Thermal Resistance(Typical) | R <sub>θJA</sub> | °C/W | 20    |       |       |       |       |

## ■Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| BY251~BY255  | D1           | Approximate 1.05 | 1250                 | 1250                    | 12500                      | Tape          |
| BY251~BY255  | C1           | Approximate 1.05 | 250                  | 250                     | 12500                      | Bulk          |



## BY251 THRU BY255

### ■ Characteristics (Typical)

FIG.1: Io-Ta Curve

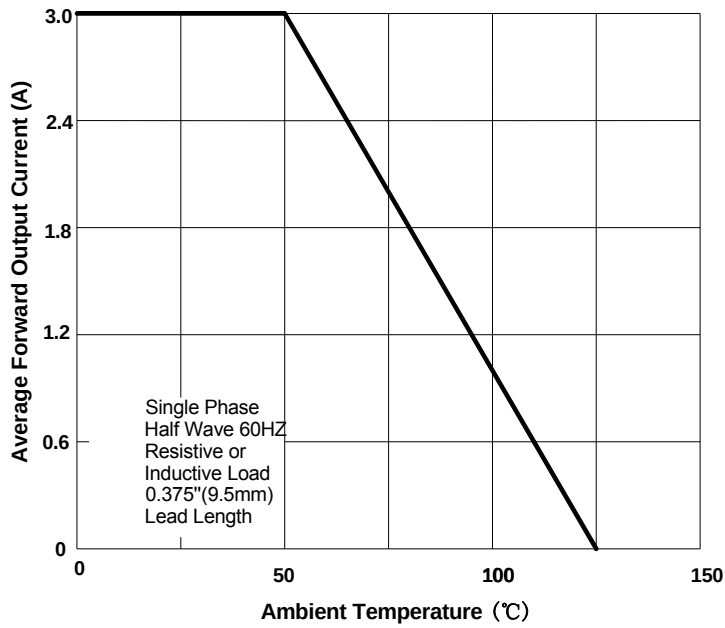


FIG.2: Surge Forward Current Capability

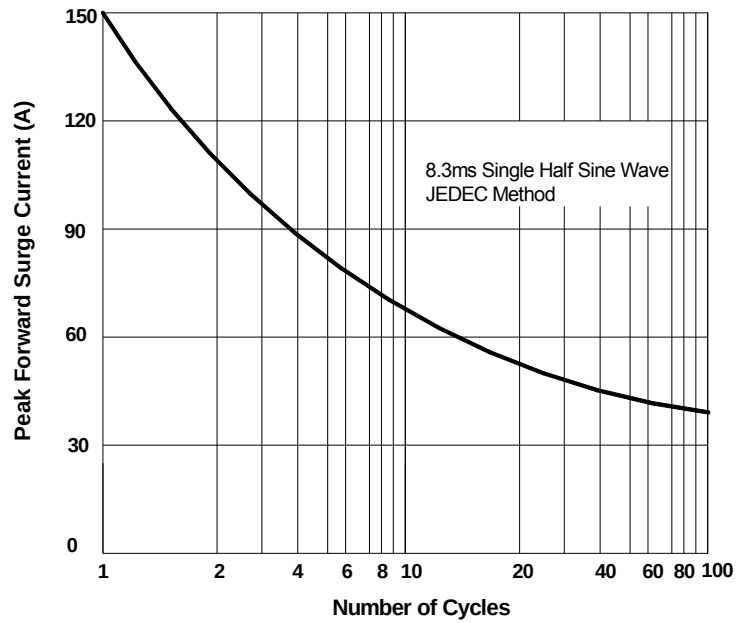


FIG.3: Forward Voltage

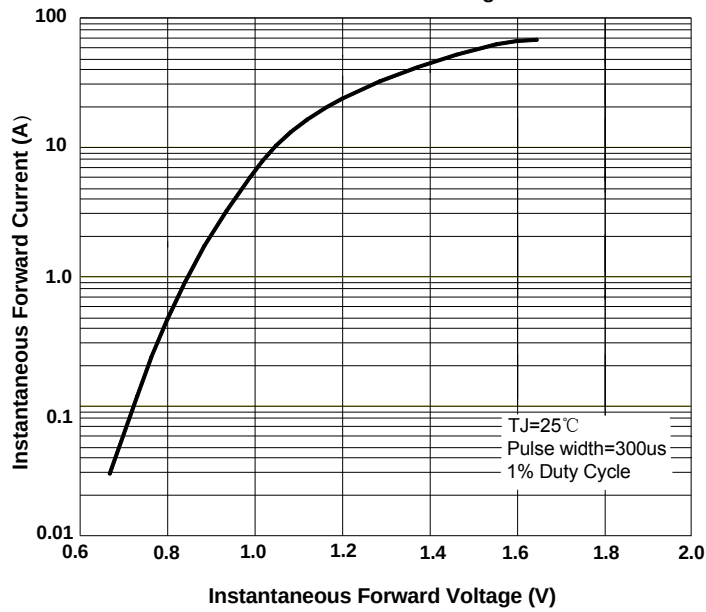
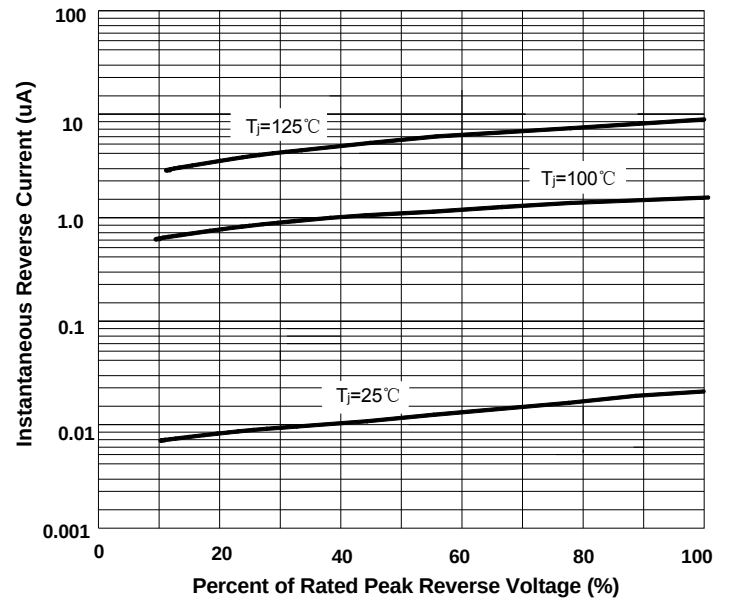
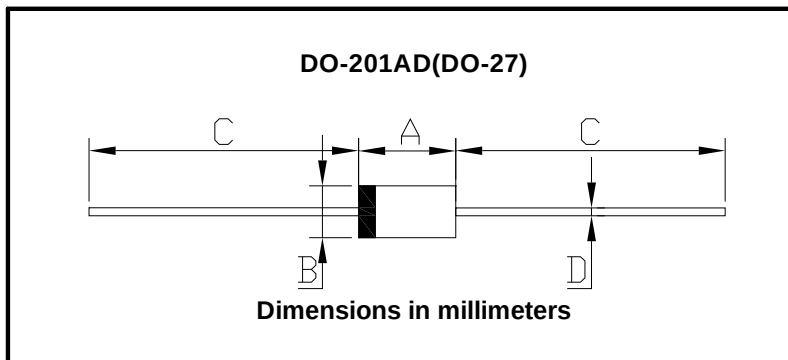


FIG.4: Typical Reverse Characteristics





## ■ Outline Dimensions



| DO-201AD(DO-27) |      |      |
|-----------------|------|------|
| Dim             | Min  | Max  |
| A               | 8.50 | 9.50 |
| B               | 5.00 | 5.60 |
| C               | 25.4 | /    |
| D               | 1.20 | 1.30 |



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