



General Purpose Plastic Rectifier



DO-201AD

FEATURES

- Low forward voltage drop
- Low leakage current,  $I_R$  less than 0.1  $\mu A$
- High forward surge capability
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS COMPLIANT

TYPICAL APPLICATIONS

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes application.

Note

- These devices are not AEC-Q101 qualified.

MECHANICAL DATA

Case: DO-201AD, molded epoxy body
Molding compound meets UL 94 V-0 flammability rating
Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: Color band denotes cathode end

Table with 2 columns: Parameter and Value. Includes primary characteristics like IF(AV), VRRM, IFSM, IR, VF, TJ max., Package, and Diode variations.

Table with 8 columns: Parameter, Symbol, BY251P, BY252P, BY253P, BY254P, BY255P, Unit. Contains maximum ratings for various parameters across different diode models.

Table with 8 columns: Parameter, Test Conditions, Symbol, BY251P, BY252P, BY253P, BY254P, BY255P, Unit. Contains electrical characteristics for different diode models.



| <b>THERMAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted) |                                |        |        |        |        |        |                    |
|---|--------------------------------|--------|--------|--------|--------|--------|--------------------|
| PARAMETER   | SYMBOL                         | BY251P | BY252P | BY253P | BY254P | BY255P | UNIT               |
| Typical thermal resistance  | $R_{\theta JA}$ <sup>(1)</sup> | 20     |        |        |        |        | $^\circ\text{C/W}$ |
|   | $R_{\theta JL}$ <sup>(1)</sup> | 10     |        |        |        |        |                    |

**Note**

(1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length, PCB mounted

| <b>ORDERING INFORMATION</b> (Example) |                 |                        |               |                                  |
|---------------------------------------|-----------------|------------------------|---------------|----------------------------------|
| PREFERRED P/N                         | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE                    |
| BY253P-E3/54                          | 1.1             | 54                     | 1400          | 13" diameter paper tape and reel |
| BY253P-E3/73                          | 1.1             | 73                     | 1000          | Ammo pack packaging              |

**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

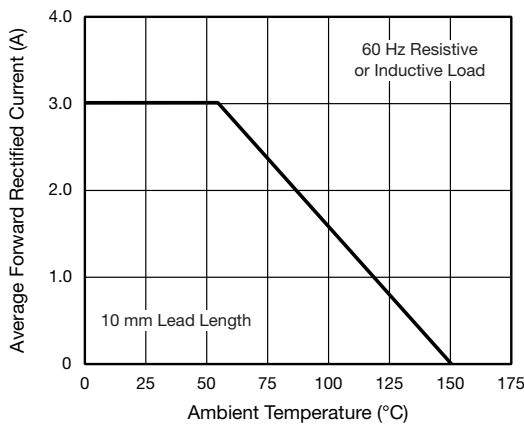


Fig. 1 - Forward Current Derating Curve

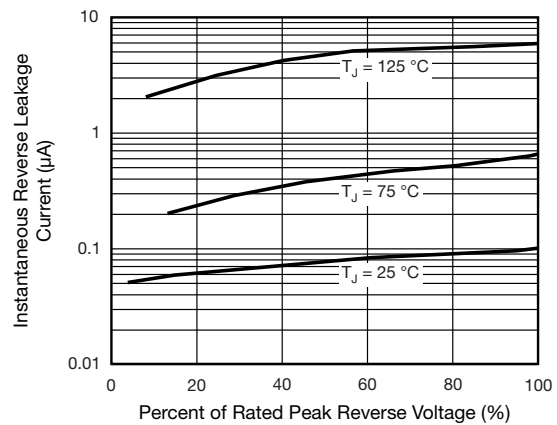


Fig. 3 - Maximum Non-repetitive Peak Forward Surge Current

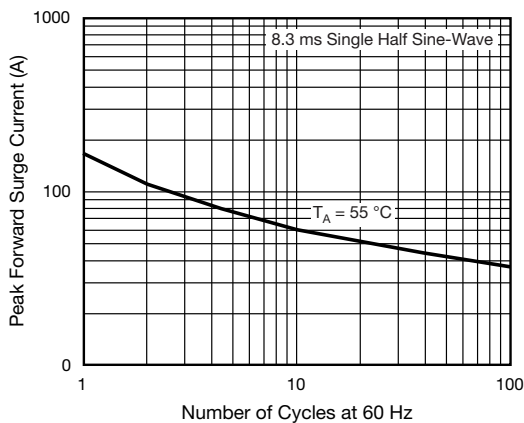


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

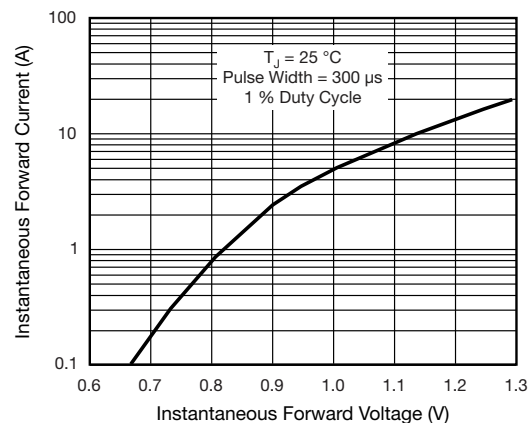


Fig. 4 - Typical Instantaneous Forward Characteristics

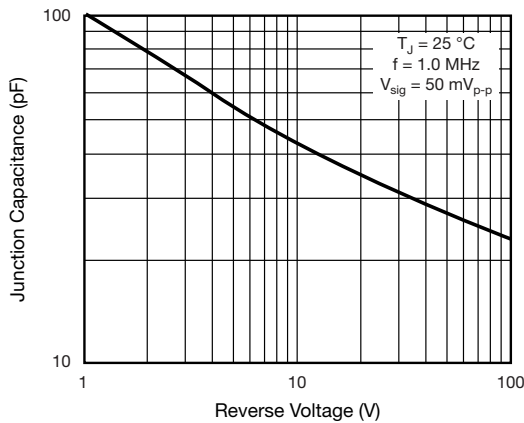
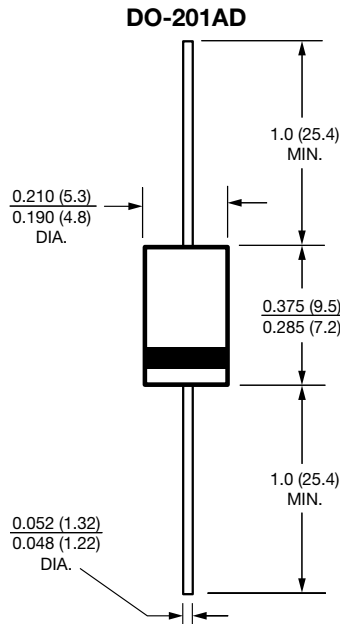


Fig. 5 - Typical Junction Capacitance

**PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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