

# BY296 - BY299

**PRV : 100 - 800 Volts**  
**Io : 2.0 Amperes**

## FEATURES :

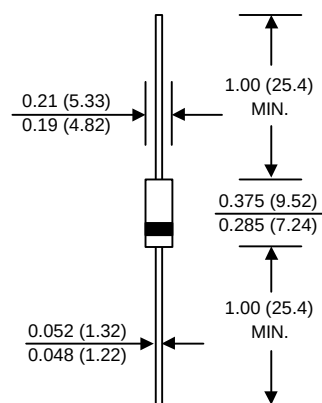
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency

## MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.16 grams

# FAST RECOVERY RECTIFIER DIODES

## DO-201AD



Dimensions in inches and ( millimeters )

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| RATING                                                                                               | SYMBOL | BY296         | BY297 | BY298 | BY299 | UNIT |
|------------------------------------------------------------------------------------------------------|--------|---------------|-------|-------|-------|------|
| Maximum Recurrent Peak Reverse Voltage                                                               | VRRM   | 100           | 200   | 400   | 800   | V    |
| Maximum RMS Voltage                                                                                  | VRMS   | 70            | 140   | 280   | 560   | V    |
| Maximum DC Blocking Voltage                                                                          | VDC    | 100           | 200   | 400   | 800   | V    |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length Ta = 50 °C                              | IF(AV) | 2.0           |       |       |       | A    |
| Peak Forward Surge Current, 8.3ms Single half sine wave<br>Superimposed on rated load (JEDEC Method) | IFSM   | 70            |       |       |       | A    |
| Maximum Peak Forward Voltage at IF = 2.0 Amps.                                                       | VF     | 1.3           |       |       |       | V    |
| Maximum DC Reverse Current Ta = 25 °C                                                                | IR     | 10            |       |       |       | µA   |
| at Rated DC Blocking Voltage Ta = 100 °C                                                             | IR(H)  | 500           |       |       |       | µA   |
| Maximum Reverse Recovery Time ( Note 1 )                                                             | Trr    | 250           |       |       |       | ns   |
| Typical Junction Capacitance ( Note 2 )                                                              | CJ     | 28            |       |       |       | pf   |
| Junction Temperature Range                                                                           | TJ     | - 50 to + 125 |       |       |       | °C   |
| Storage Temperature Range                                                                            | TSTG   | - 50 to + 150 |       |       |       | °C   |

## Notes :

- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

## RATING AND CHARACTERISTIC CURVES ( BY296 - BY299 )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

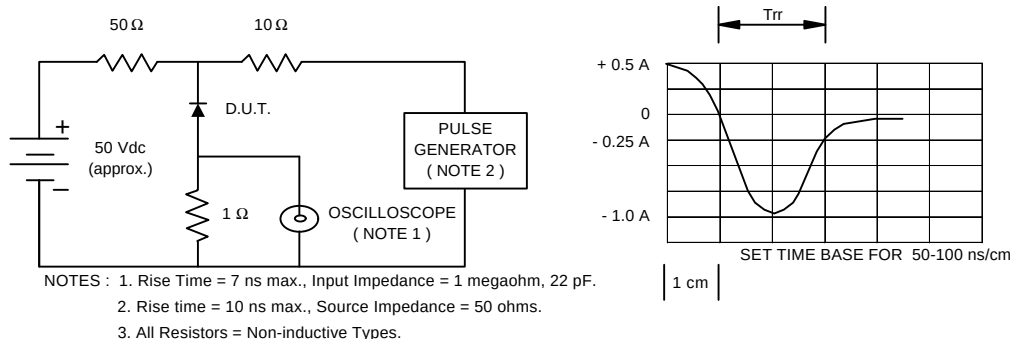


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

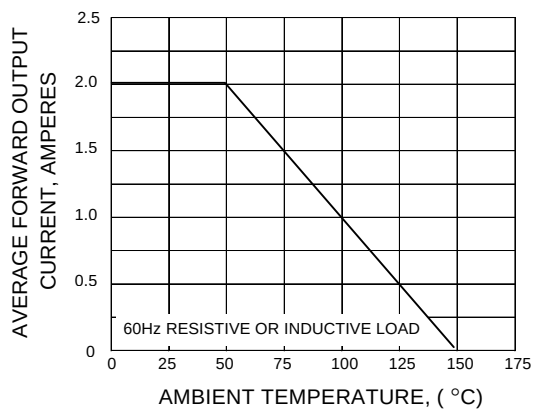


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

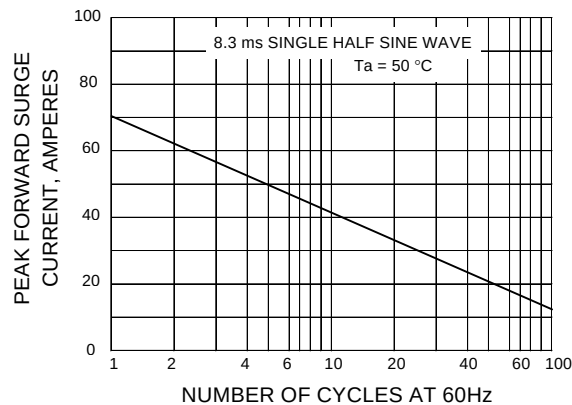


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

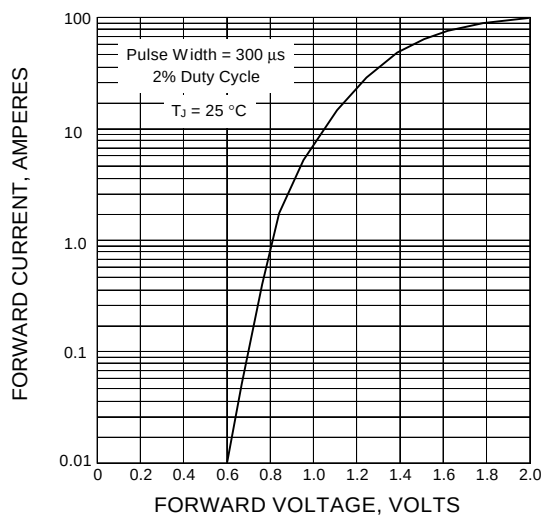


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

