

# HVR312 - HVR320

**PRV : 1200 - 2000 Volts**

**Io : 3.0 Amperes**

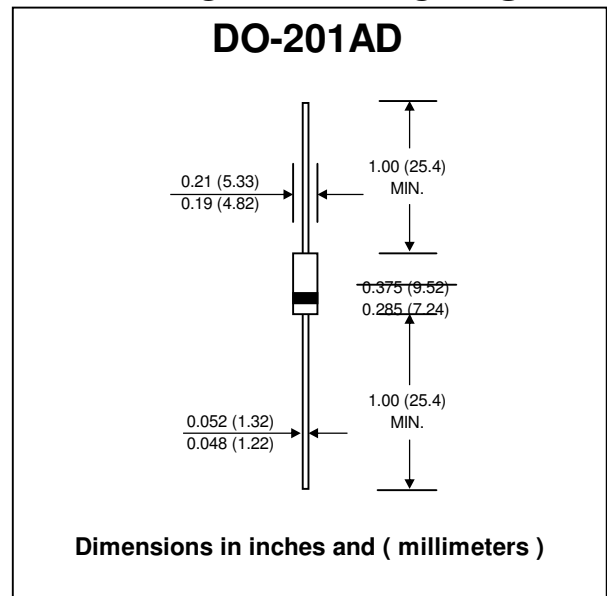
**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

**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

## HIGH VOLTAGE RECTIFIER DIODES



### 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%.

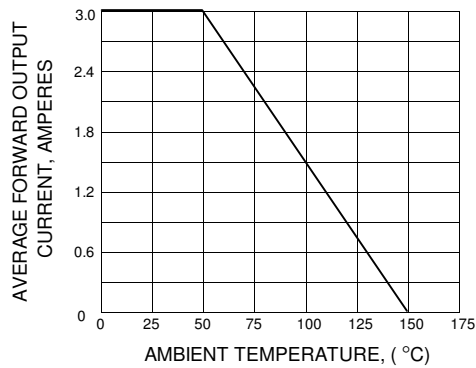
| RATING   | SYMBOL | HVR312        | HVR314 | HVR316 | HVR318 | HVR320 | UNIT |
|--|--------|---------------|--------|--------|--------|--------|------|
| Maximum Repetitive Peak Reverse Voltage  | VRRM   | 1200          | 1400   | 1600   | 1800   | 2000   | V    |
| Maximum RMS Voltage  | VRMS   | 840           | 980    | 1120   | 1260   | 1400   | V    |
| Maximum DC Blocking Voltage  | VDC    | 1200          | 1400   | 1600   | 1800   | 2000   | V    |
| Maximum Average Forward Current Ta = 50°C  | IF(AV) | 3.0           |        |        |        |        | A    |
| Maximum Peak Forward Surge Current<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | IFSM   | 100           |        |        |        |        | A    |
| Maximum Peak Forward Voltage at IF = 3.0 A   | VF     | 2.2           |        |        |        |        | V    |
| Maximum DC Reverse Current   | IR     | 10            |        |        |        |        | µA   |
| Typical Junction Capacitance (Note 1)  | Cj     | 36            |        |        |        |        | pF   |
| Typical Thermal Resistance (Note 2)  | RθJA   | 26            |        |        |        |        | °C/W |
| Junction Temperature Range   | TJ     | - 40 to + 150 |        |        |        |        | °C   |
| Storage Temperature Range  | TSTG   | - 40 to + 150 |        |        |        |        | °C   |

**Notes :**

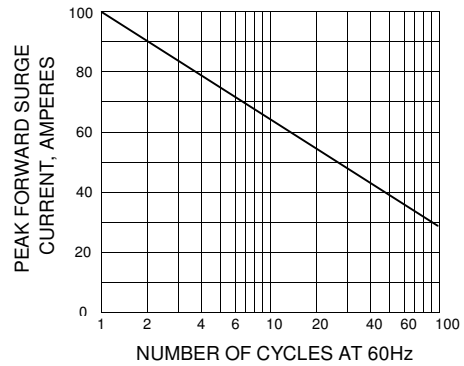
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES ( HVR312 - HVR320 )**

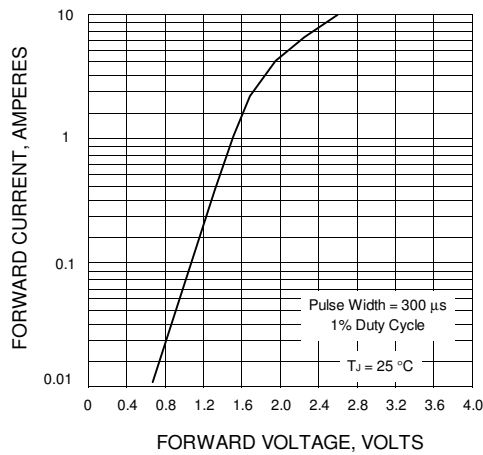
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

