

# BY1800

**PRV : 1800 Volts**

**Io : 3.0 Amperes**

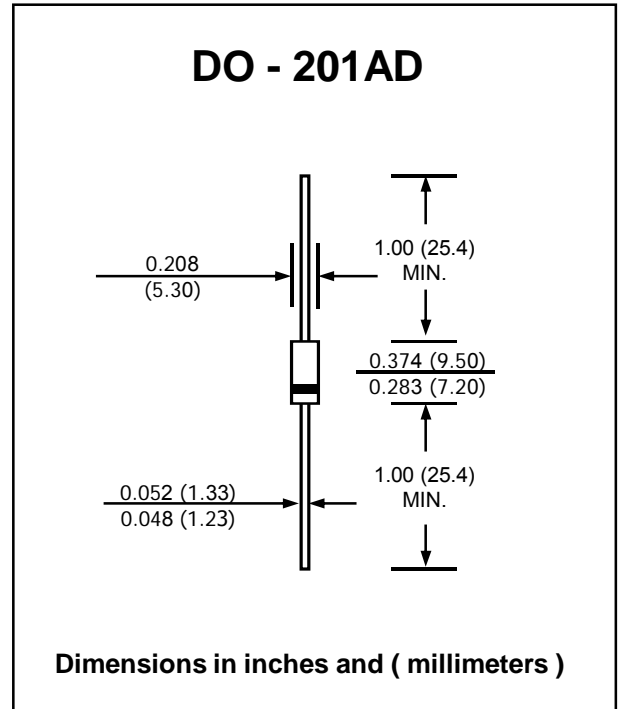
**FEATURES :**

- \* 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 : 0.929 grams

# SILICON RECTIFIER DIODE



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

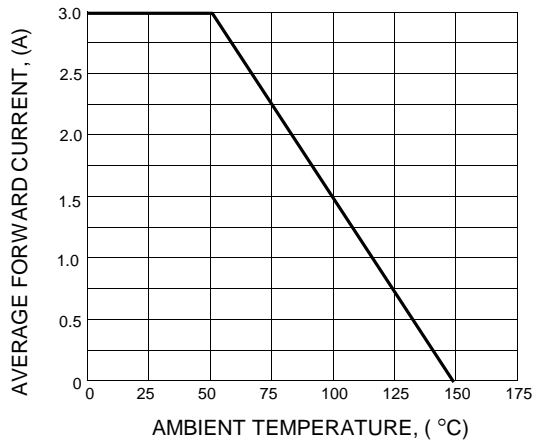
Rating at 25 °C ambient temperature unless otherwise specified.

| RATING  | SYMBOL          | VALUE         | UNIT             |
|---|-----------------|---------------|------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 1800          | V                |
| Maximum RMS Voltage   | $V_{RMS}$       | 1260          | V                |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 1800          | V                |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length $T_a = 50\text{ }^\circ\text{C}$ | $I_F$           | 3.0           | A                |
| Peak Forward Surge Current<br>50/60 Hz half sine wave Superimposed                            | $I_{FSM}$       | 100/110       | A                |
| Maximum Forward Voltage at $I_F = 3.0$ Amps.  | $V_F$           | 1.1           | V                |
| Maximum Reverse Current<br>$V_R = V_{RRM}$ $T_j = 25\text{ }^\circ\text{C}$                   | $I_R$           | 20            | $\mu\text{A}$    |
| Thermal Resistance Junction to Ambient air (Note1)  | $R_{\theta JA}$ | 25            | K/W              |
| Thermal Resistance Junction to Lead   | $R_{\theta JL}$ | 10            | K/W              |
| Operating Junction Temperature Range  | $T_J$           | - 50 to + 150 | $^\circ\text{C}$ |
| Storage Temperature Range   | $T_{STG}$       | - 50 to + 175 | $^\circ\text{C}$ |

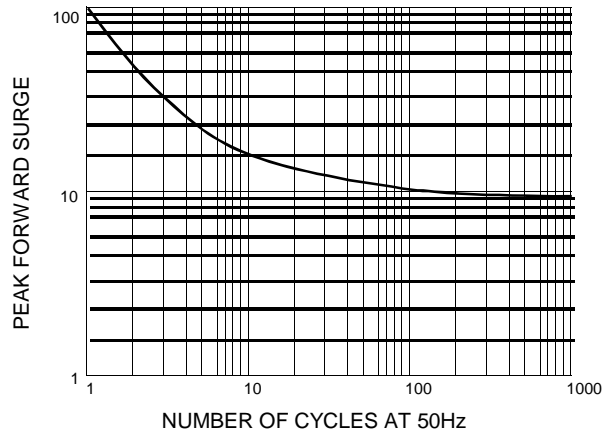
**Note :** (1) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES( BY1800 )**

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



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**

