

# AR3500 - AR3510

**PRV : 50 - 1000 Volts**  
**Io : 35 Amperes**

## FEATURES :

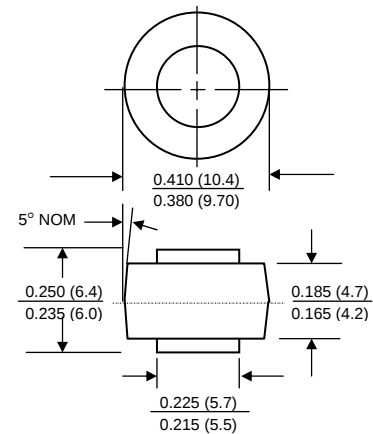
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Terminal are readily solderable
- \* Polarity : Cathode polarity band
- \* Mounting position : Any
- \* Weight : 1.80 grams

## AUTOMOTIVE RECTIFIER DIODES

### BUTTON CASE



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

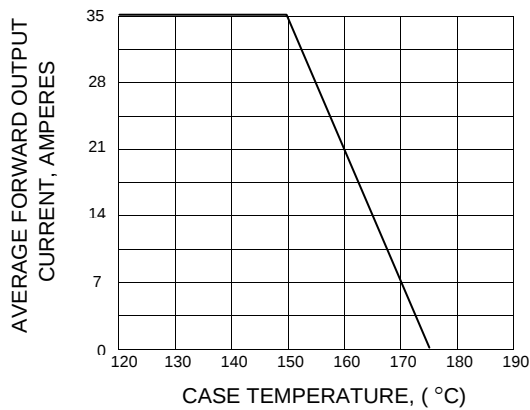
Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

| RATING                                                                                              | SYMBOL          | AR 3500       | AR 3501 | AR 3502 | AR 3504 | AR 3506 | AR 3508 | AR 3510 | UNIT          |
|-----------------------------------------------------------------------------------------------------|-----------------|---------------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum Repetitive Peak Reverse Voltage                                                             | $V_{RRM}$       | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | V             |
| Maximum RMS Voltage                                                                                 | $V_{RMS}$       | 35            | 70      | 140     | 280     | 420     | 560     | 700     | V             |
| Maximum DC Blocking Voltage                                                                         | $V_{DC}$        | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | V             |
| Average Rectified Forward Current $T_c = 150^{\circ}C$                                              | $I_{F(AV)}$     | 35            |         |         |         |         |         |         | A             |
| Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)          | $I_{FSM}$       | 400           |         |         |         |         |         |         | A             |
| Maximum Forward Voltage at $I_F = 35$ Amps.                                                         | $V_F$           | 1.1           |         |         |         |         |         |         | V             |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$<br>at rated DC Blocking Voltage $T_a = 100^{\circ}C$ | $I_R$           | 5.0           |         |         |         |         |         |         | $\mu A$       |
|                                                                                                     | $I_{R(H)}$      | 1.0           |         |         |         |         |         |         | mA            |
| Thermal Resistance (Note 1)                                                                         | $R_{\theta JC}$ | 1.0           |         |         |         |         |         |         | $^{\circ}C/W$ |
| Junction Temperature Range                                                                          | $T_J$           | - 65 to + 175 |         |         |         |         |         |         | $^{\circ}C$   |
| Storage Temperature Range                                                                           | $T_{STG}$       | - 65 to + 175 |         |         |         |         |         |         | $^{\circ}C$   |

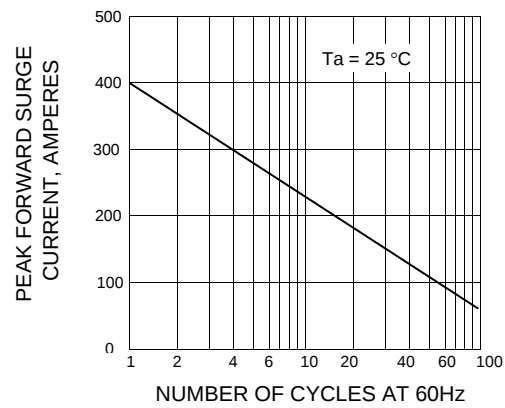
**Note :** (1) Thermal resistance from junction to case. Single side cooled.

## RATING AND CHARACTERISTIC CURVES ( AR3500 - AR3510 )

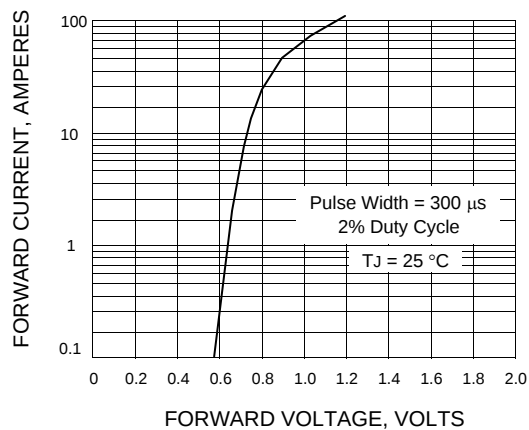
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

