

# AR5000 - AR5010

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

**FEATURES :**

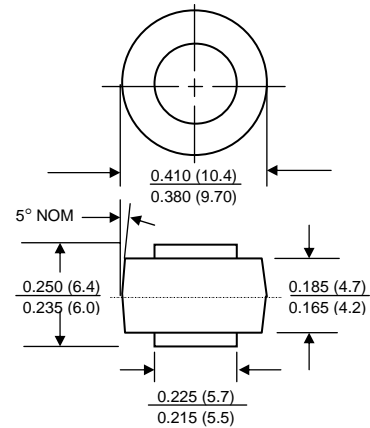
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**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 5000	AR 5001	AR 5002	AR 5004	AR 5006	AR 5008	AR 5010	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Average Rectified Forward Current T <sub>c</sub> = 150°C	I <sub>F(AV)</sub>	50							A
Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	500							A
Maximum Forward Voltage at I <sub>F</sub> = 50 Amps.	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current Ta = 25 °C at rated DC Blocking Voltage Ta = 100 °C	I <sub>R</sub>	5.0							μA
	I <sub>R(H)</sub>	1.0							mA
Thermal Resistance (Note 1)	R <sub>θJC</sub>	0.8							°C/W
Junction Temperature Range	T <sub>J</sub>	- 65 to + 175							°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175							°C

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

**RATING AND CHARACTERISTIC CURVES ( AR5000 - AR5010 )**

