

# AR2500 - AR2512

## AUTOMOTIVE RECTIFIER DIODES

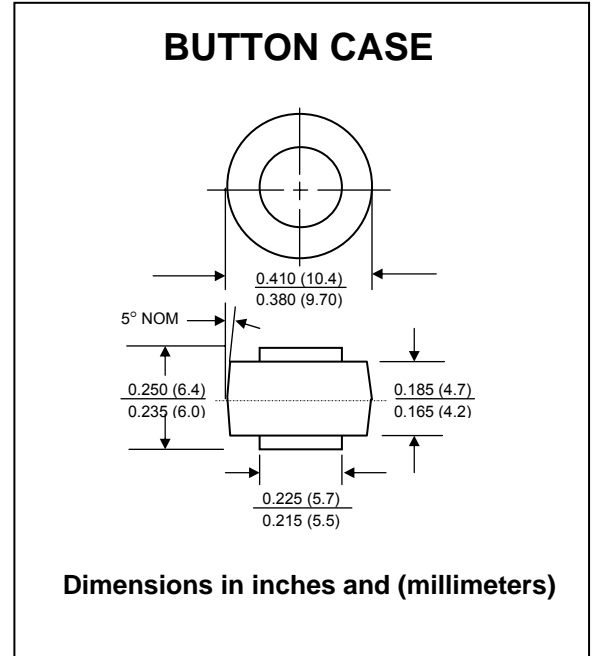
**PRV : 50 - 1200 Volts**  
**I<sub>o</sub> : 25 Amperes**

### 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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

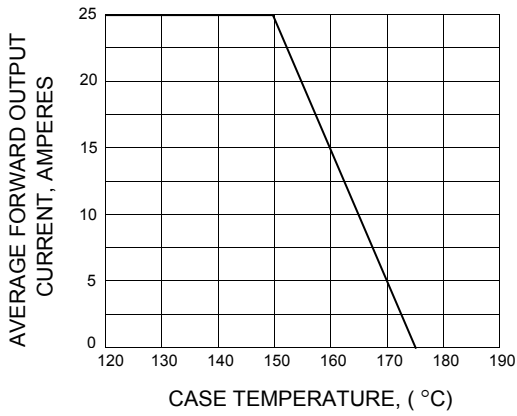
For capacitive load, derate current by 20%.

RATING	SYMBOL	AR 2500	AR 2501	AR 2502	AR 2504	AR 2506	AR 2508	AR 2510	AR 2512	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1200	V
Average Rectified Forward Current T <sub>c</sub> = 150°C	I <sub>F(AV)</sub>	25								A
Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400								A
Maximum Forward Voltage at I <sub>F</sub> = 25 Amps.	V <sub>F</sub>	1.0								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

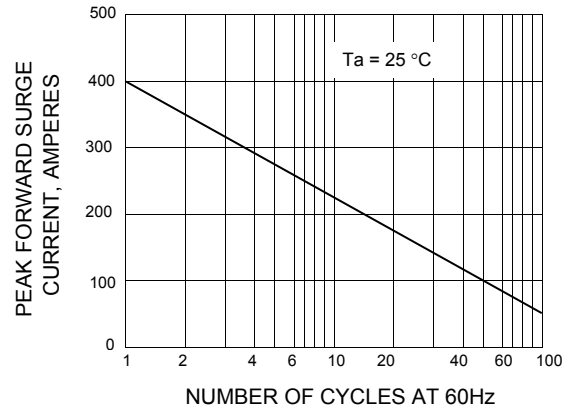
**Note :** (1) Thermal resistance from junction to case. Single side cooled.

**RATING AND CHARACTERISTIC CURVES ( AR2500 - AR2512 )**

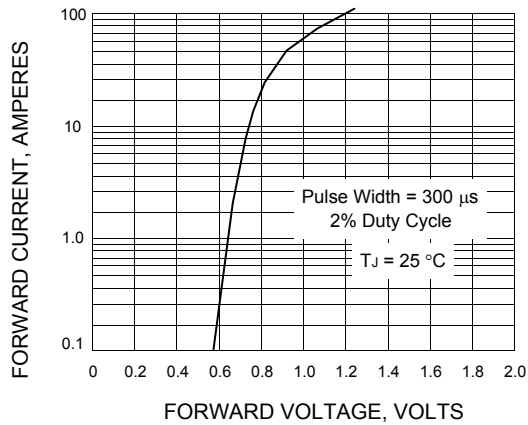
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

