

AR2500 - AR2512

PRV : 50 - 1200 Volts
Io : 25 Amperes

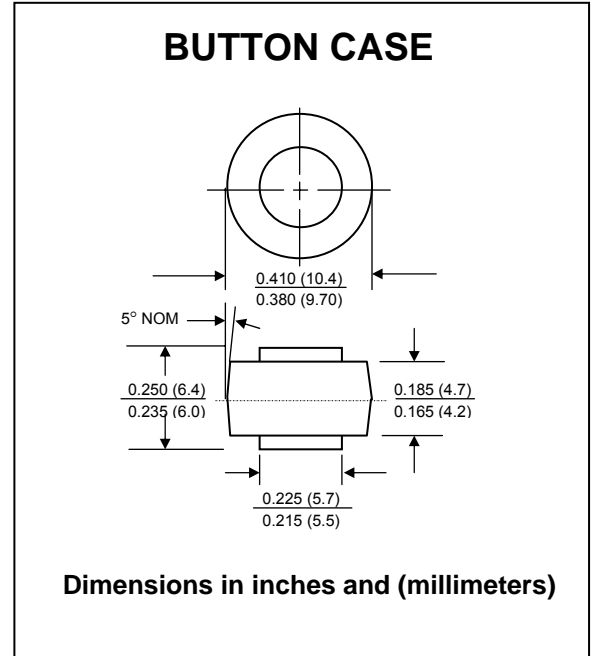
FEATURES :

- * 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

AUTOMOTIVE 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 | AR 2500 | AR 2501 | AR 2502 | AR 2504 | AR 2506 | AR 2508 | AR 2510 | AR 2512 | UNIT |
|---|-----------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | 840 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| Average Rectified Forward Current $T_c = 150^{\circ}C$ | $I_{F(AV)}$ | 25 | | | | | | | | A |
| Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method) | I_{FSM} | 400 | | | | | | | | A |
| Maximum Forward Voltage at $I_F = 25$ Amps. | V_F | 1.0 | | | | | | | | V |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$ at rated DC Blocking Voltage $T_a = 100^{\circ}C$ | I_R | 5.0 | | | | | | | | μA |
| | $I_{R(H)}$ | 1.0 | | | | | | | | mA |
| Thermal Resistance (Note 1) | $R_{\theta JC}$ | 0.8 | | | | | | | | $^{\circ}C/W$ |
| 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 (AR2500 - AR2512)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

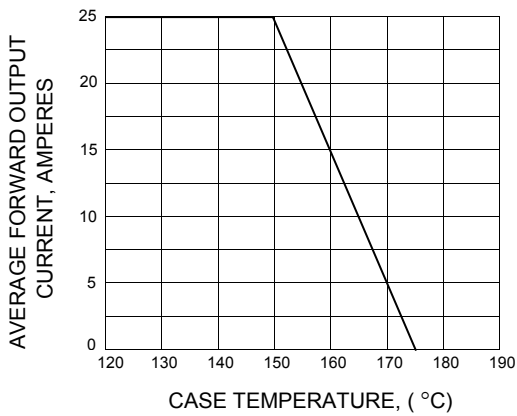


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

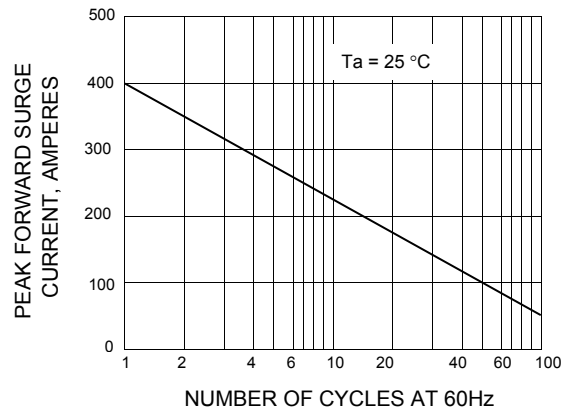


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

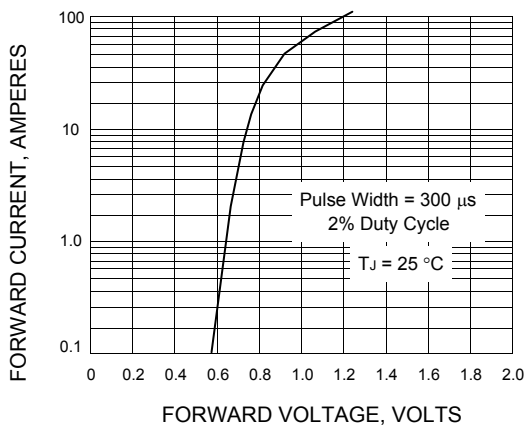


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

