

AR2500L - AR2512L

PRV : 50 - 1200 Volts

I_o : 25 Amperes

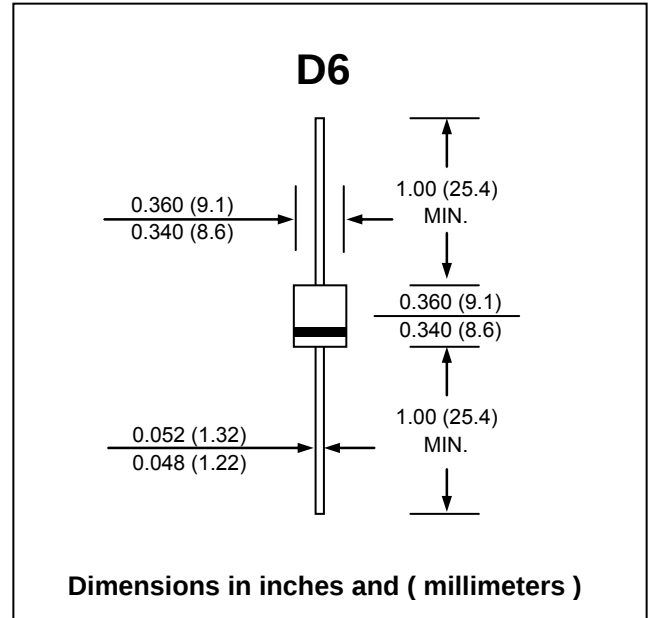
FEATURES :

- * 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
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 2.049 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 2500L	AR 2501L	AR 2502L	AR 2504L	AR 2506L	AR 2508L	AR 2510L	AR 2512L	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 $T_c = 150^\circ\text{C}$	$I_{F(AV)}$	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 $T_a = 25^\circ\text{C}$	I_R	5.0								μA
at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_{R(H)}$	1.0								mA
Thermal Resistance (Note 1)	$R_{\theta JC}$	0.8								$^\circ\text{C/W}$
Junction Temperature Range	T_J	- 65 to + 175								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 175								$^\circ\text{C}$

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

RATING AND CHARACTERISTIC CURVES (AR2500L - AR2512L)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

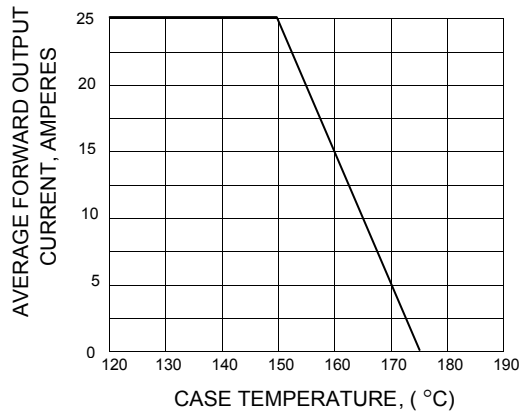


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

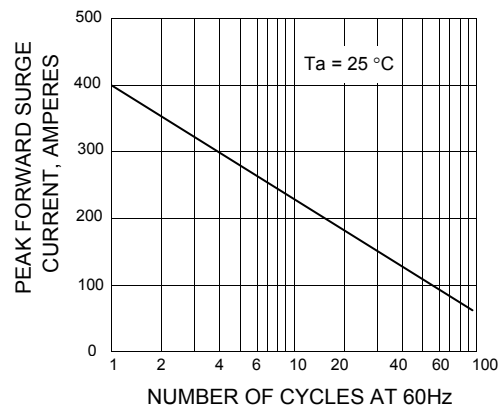


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

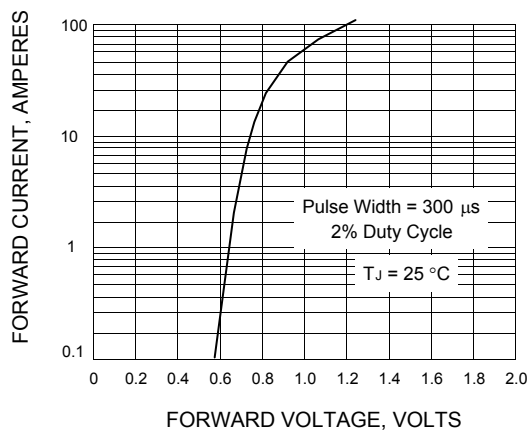


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

