

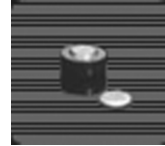


AR2500 thru AR2512

25 Amps. Automotive Rectifier Diodes
Voltage Range 50 to 1200 Volts Forward Current 25 Amperes

Features

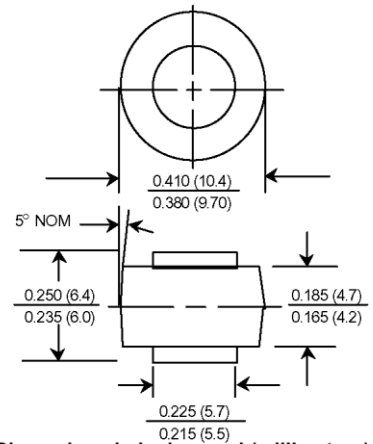
- ◆ High current capability
- ◆ High surge current capability
- ◆ High reliability
- ◆ Low reverse current
- ◆ Low forward voltage drop



AR

Mechanical Data

- ◆ Case : Molded plastic
- ◆ Epoxy : UL94V-O rate flame retardant
- ◆ Terminals : Terminal are readily solderable
- ◆ Polarity : Cathode polarity band
- ◆ Mounting position : Any
- ◆ Weight : 1.84 grams



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings 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%.

Parameter	Symbols	AR 2500	AR 2501	AR 2502	AR 2504	AR 2506	AR 2508	AR 2510	AR 2512	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	840	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1200	Volts
Average rectified forward current $T_c=150^\circ\text{C}$	$I_{F(AV)}$	25.0								Amps
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400.0								Amps
Maximum forward voltage at $I_F=25$ Amps.	V_F	1.0								Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 1.0								μA mA
Typical thermal resistance (Note 1)	$R_{\theta JC}$	0.8								$^\circ\text{C/W}$
Operating junction temperature range	T_J	-65 to +175								$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175								$^\circ\text{C}$

Notes: 1. Thermal resistance from junction to case. Single side cooled.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

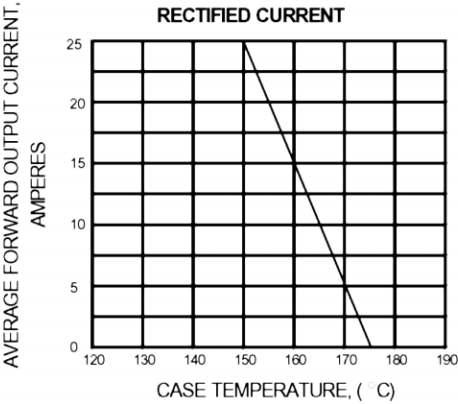


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

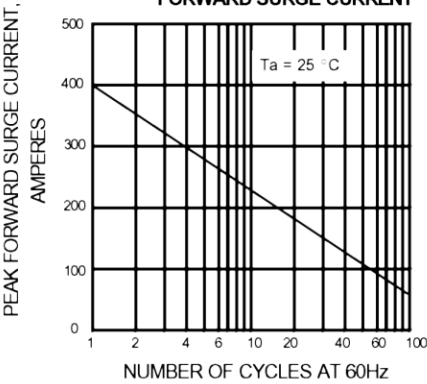


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

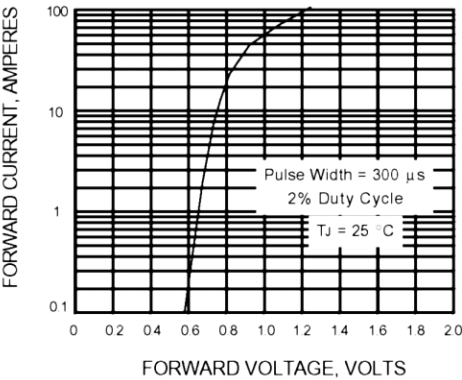


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

