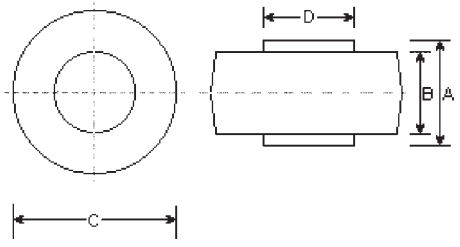
AR2500 THRU AR2510

AUTOMOTIVE RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current - 25.0 Amperes

Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability

RA



Mechanical Data

- Copper heat sink
- Tin-plated slug easy for soldering
- Encapsulated by UL94V-0 rate (flame retardant) plastic

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.235	0.250	6.0	6.4	
B	0.165	0.185	4.2	4.7	
C	0.380	0.410	9.7	10.4	ϕ
D	0.215	0.225	5.5	5.7	ϕ

Maximum Ratings and Electrical Characteristicss

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	AR 2500	AR 2501	AR 2502	AR 2504	AR 2506	AR 2508	AR 2510	Units
Marking colcr		Violet	Brown	Red	Yellow	Blue	Silver	Gold	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T_C=150℃	I_O	25.0							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	400.0							Amps
Maximum instantaneous forward voltage at 25.0A DC	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage T_J=25℃ / @T_C=100℃	I_R	25.0 500.0							μ A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	1.0							℃/W
Operating and storage temperature range	T_J, T_{STG}	-65 to +175							℃

Note:

(1) Enough heat sink must be considered in application

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

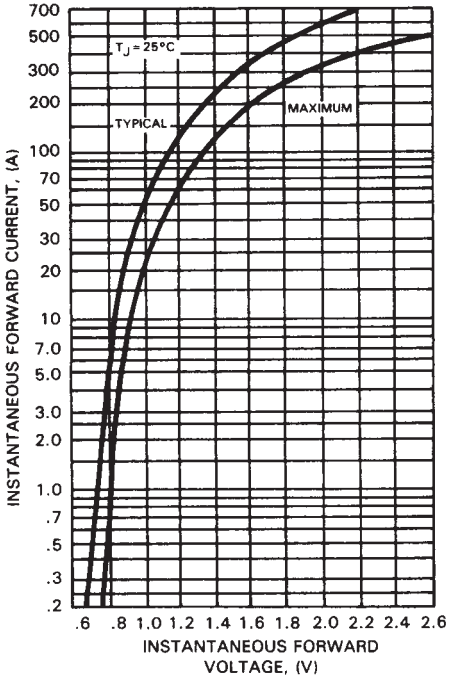


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

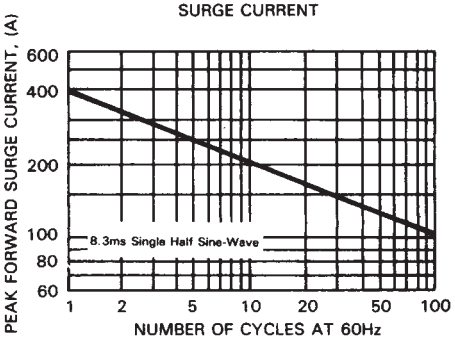


FIG. 3 - TYPICAL FORWARD CURRENT DERATING CURVE

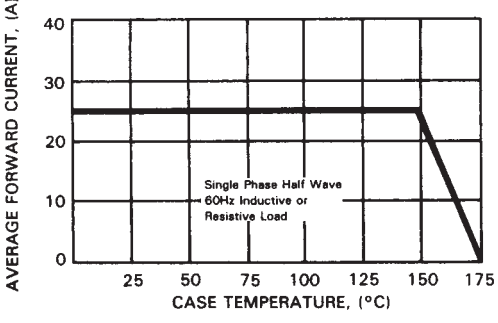


FIG. 4 - FORWARD POWER DISSIPATION