



## AUTOMOTIVE RECTIFIER

**RA2505 THRU RA2510**

**VOLTAGE RANGE  
CURRENT**

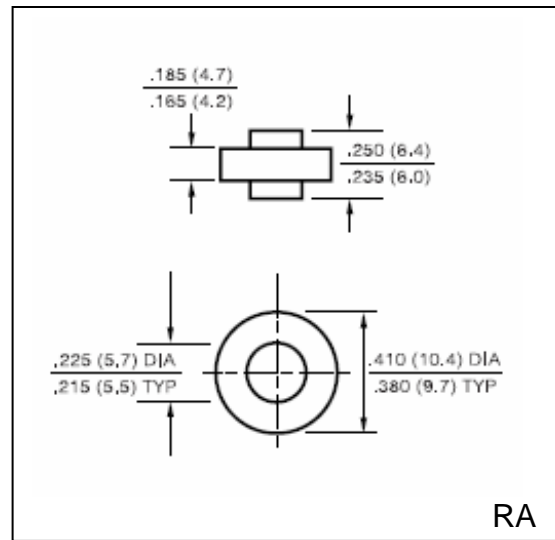
**50 to 1000 Volts  
25.0 Ampere**

### FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity

### MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Plated slug, solderable per MIL-STD-202E method 208C
- Polarity: color ring denotes cathode end
- Mounting Position: any
- Weight: 0.067 ounce, 1.90 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	RA 2505	RA 251	RA 252	RA 254	RA 256	RA 258	RA 2510	UNIT
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 $T_C = 125^\circ C$	$I_{(AV)}$	25.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	400							Amps
Maximum Instantaneous Forward Voltage @ 25.0A	$V_F$	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	$T_A = 25^\circ C$ 25							$\mu A$
		$T_A = 100^\circ C$ 500							
Typical Thermal Resistance	$R_{\theta JC}$	1.0							$^\circ C/W$
Operating Junction Temperature Range	$T_J$	(-65 to +175)							$^\circ C$
Storage Temperature Range	$T_{STG}$	(-65 to +175)							$^\circ C$

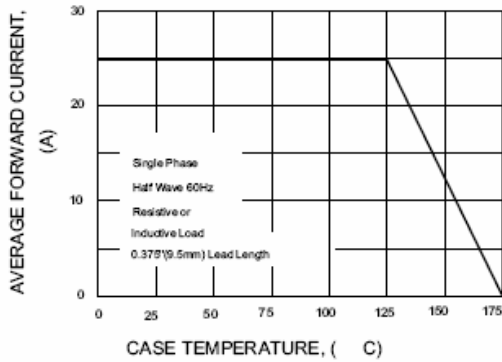
### Notes:

1. Proper heatsinking must be provided

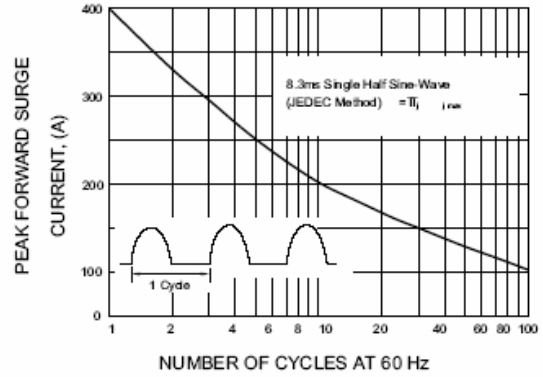


**RATINGS AND CHARACTERISTIC CURVES RA2505 THRU RA2510**

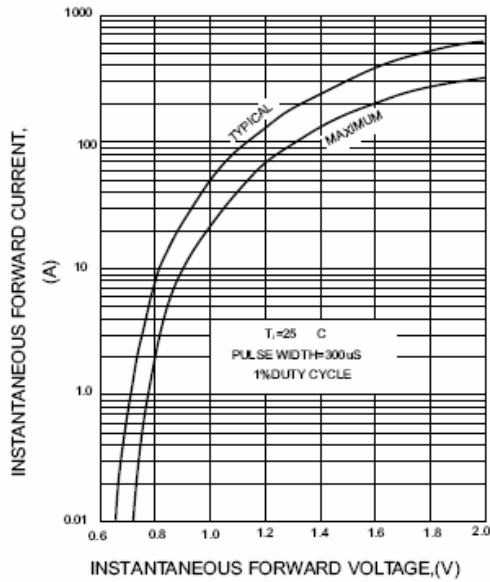
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



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



**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4. FORWARD POWER DISSIPATION**

