

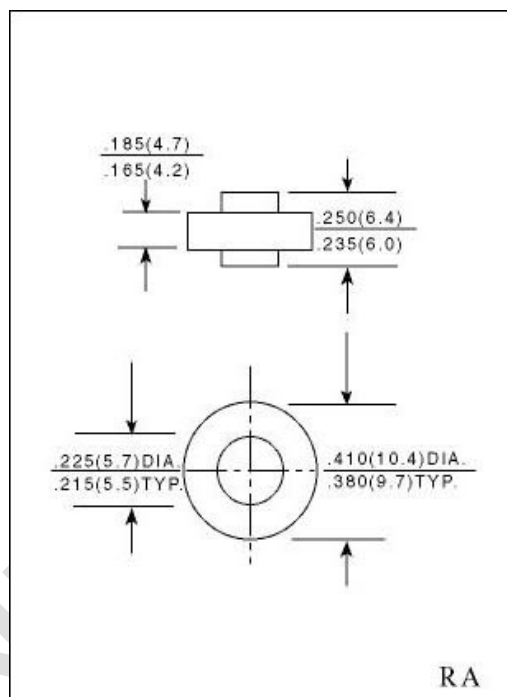
### AUTOMOTIVE RECTIFIER

#### FEATURES

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

#### MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color ring denotes cathode end.
- Lead: Plated slug, solderable per MIL - STD - 202E method 208C
- Mounting position: Any
- Weight: 0.064 ounce, 1.82gram



#### 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 1505      | RA 151 | RA 152 | RA 154 | RA 156 | RA 158 | RA 1510 | 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 $T_C = 125^\circ C$                                      | $I_{(AV)}$          | 15.0         |        |        |        |        |        |         | Amps         |
| Peak Forward Surge Current<br>8.3ms single half sine - wave superimposed on rated load (JEDEC method ) | $I_{FSM}$           | 300          |        |        |        |        |        |         | Amps         |
| Maximum Instantaneous Forward Voltage at 15 A  | $V_F$               | 1.05         |        |        |        |        |        |         | Volts        |
| Maximum DC Reverse Current at rated DC blocking voltage  | $T_A = 25^\circ C$  | 5.0          |        |        |        |        |        |         | $\mu A$      |
|  | $T_C = 100^\circ C$ |              |        |        |        |        |        |         |              |
| Typical Thermal Resistance   | $R_{\theta JC}$     | 1.0          |        |        |        |        |        |         | $^\circ C/W$ |
| Operating and Storage Temperature Range  | $T_J, T_{STG}$      | (-65 to+175) |        |        |        |        |        |         | $^\circ C$   |

#### NOTES:

1. Enough heatsink must be considered in application.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

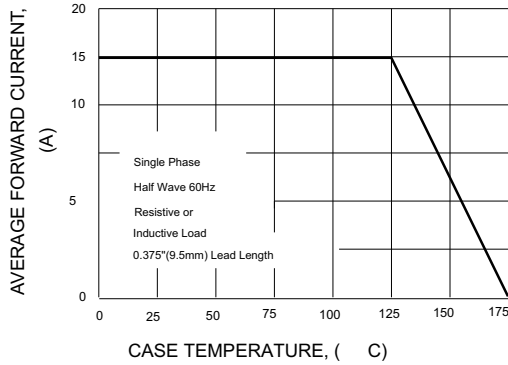


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

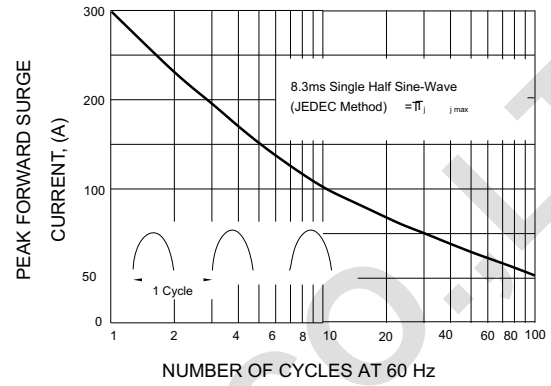


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

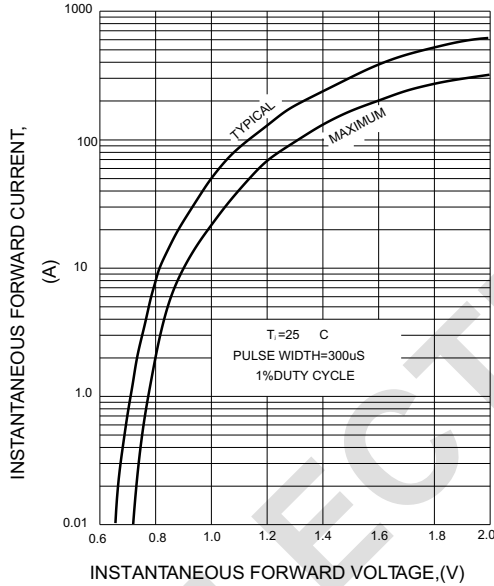


FIG.4. FORWARD POWER DISSIPATION

