

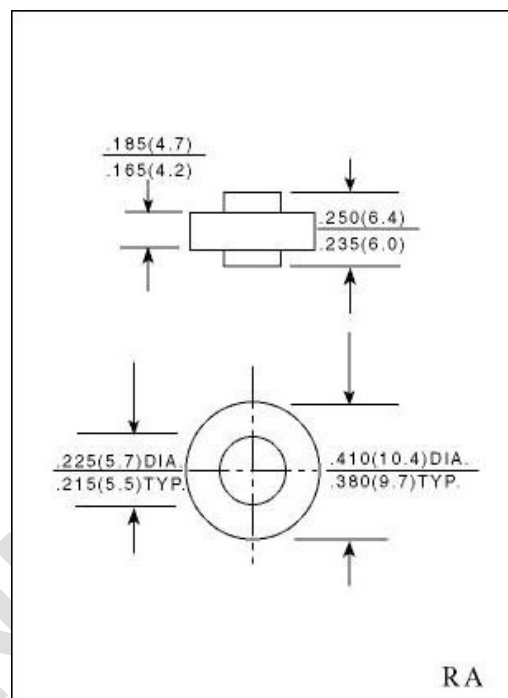
AUTOMOTIVE RECTIFIER

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: 0.067 ounce, 1.90gram



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 | | | | | | | 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 at 25 A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at rated DC blocking voltage | $T_A = 25^\circ C$ | 25 | | | | | | | μA |
| | $T_C = 100^\circ C$ | 500 | | | | | | | |
| 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

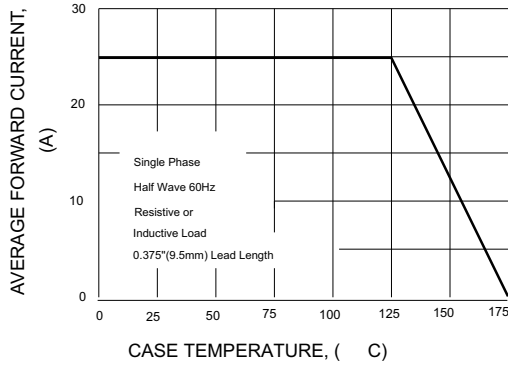


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

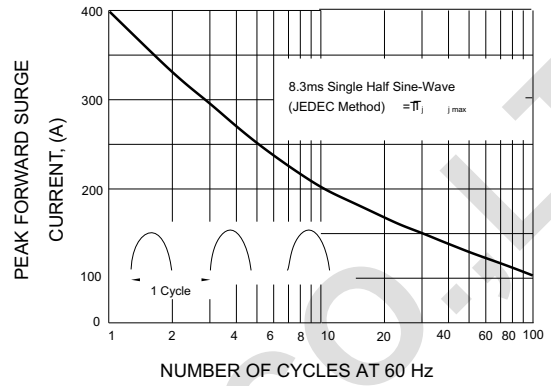


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

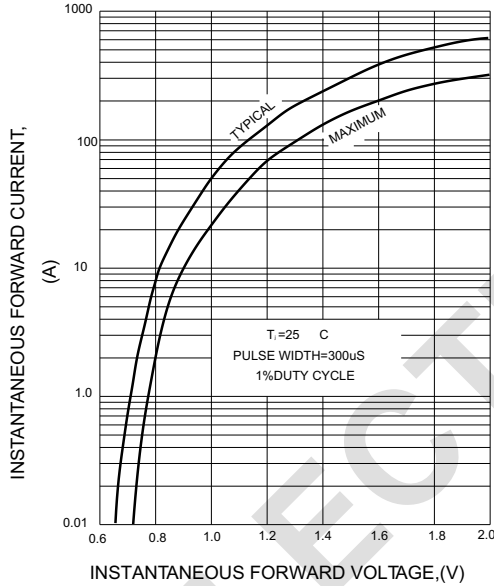


FIG.4. FORWARD POWER DISSIPATION

