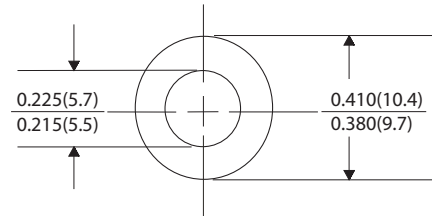
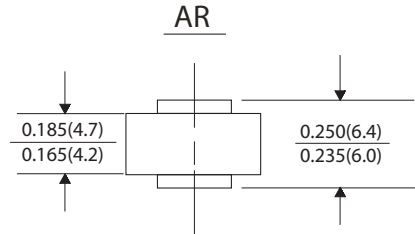


AR2505 THRU AR2510

CURRENT 25.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Low cost construction utilizing void-free molded plastic technique
- Low cost
- Diffused junctions
- Low leakage
- High surge capability
- High temperature soldering guaranteed : 250°C for 10 seconds



Dimensions in inches and (millimeters)

Mechanical Data

- Case : AR molded plastic
- Terminals : Plated terminals, solderable per MIL-STD-750, method 208
- Polarity : Color ring denotes cathode end
- Mounting Position : Any
- Weight : 0.07 ounce, 1.8 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 by 20%)

| | Symbols | AR 2505 | AR 251 | AR 252 | AR 254 | AR 256 | AR 258 | AR 2510 | Units |
|---|-------------------------|-------------|--------|--------|--------|--------|--------|---------|---------------------------|
| Maximum recurrent 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 $T_C=150^\circ\text{C}$ | $I_{(AV)}$ | 25.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) $T_J=150^\circ\text{C}$ | I_{FSM} | 400 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 25.0A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | $T_C=25^\circ\text{C}$ | 5.0 | | | | | | | μA |
| | $T_C=100^\circ\text{C}$ | 250 | | | | | | | |
| Typical reverse recovery time (Note 2) | t_{rr} | 3.0 | | | | | | | μS |
| Typical junction capacitance (Note 1) $T_J=25^\circ\text{C}$ | C_J | 300 | | | | | | | pF |
| Typical thermal resistance (Note 3) | $R_{\theta JC}$ | 1.0 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating and storage temperature range | T_J T_{STG} | -50 to +175 | | | | | | | $^\circ\text{C}$ |

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V dc.
- (2) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
- (3) Thermal resistance from junction to case, single side cooled.



RATINGS AND CHARACTERISTIC CURVES AR2505 THRU AR2510

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

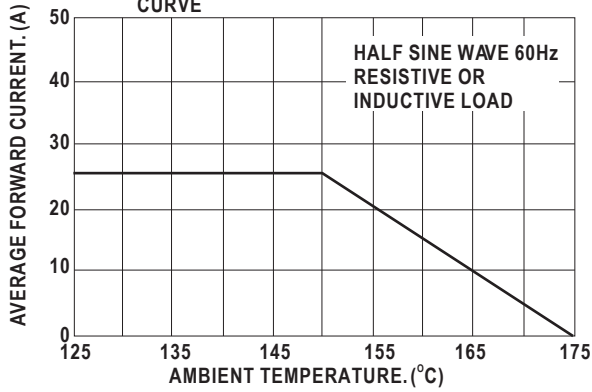


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

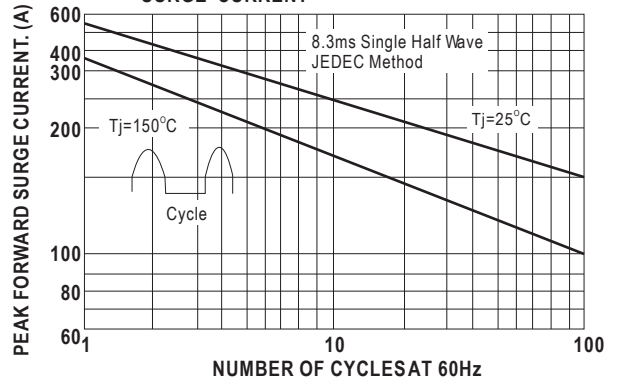


FIG.3- TYPICAL FORWARD CHARACTERISTICS

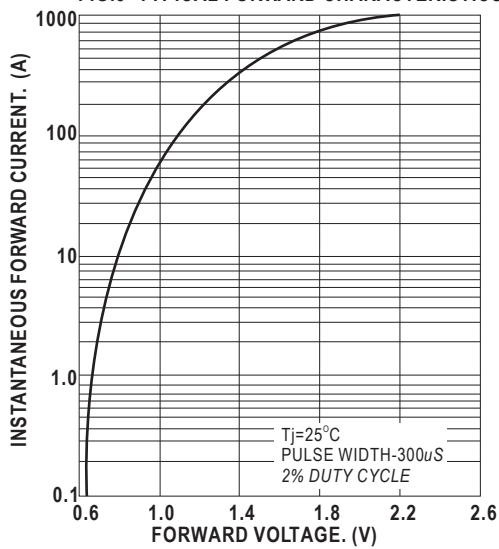


FIG.4- TYPICAL REVERSE CHARACTERISTICS

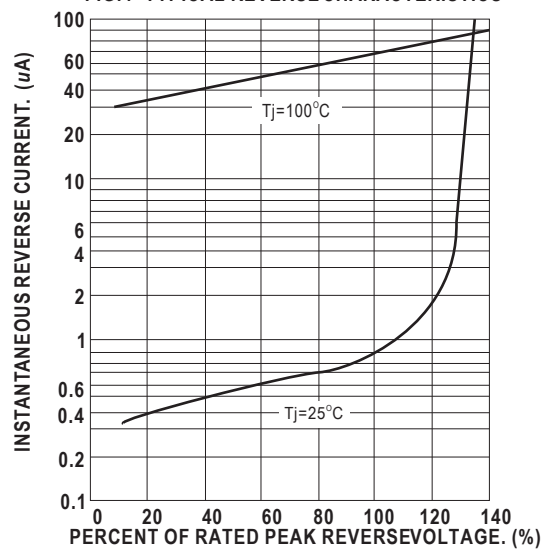


FIG.5- TYPICAL JUNCTION CAPACITANCE

