



**RADIO MANUFACTURERS ASSOCIATION
ENGINEERING DEPARTMENT**

Release No. 516

September 5, 1946

**RMA TYPE 677
GRID CONTROLLED MERCURY
VAPOR RECTIFIER**

sponsor:
Westinghouse Electric Corp.

GENERAL CHARACTERISTICS

Air Cooled Triode
 Heater Voltage..... 5 Volts
 Heater Current..... 10 Amperes
 Cathode Heating Time..... 5 Minutes
 Grid Current, Max., just before
 Conduction, Grid Negative..... 5 Microamperes
 Ionization Time, Max..... 10 Microseconds
 Deionization Time, Max..... 1000 Microseconds
 Tube Voltage Drop..... 12 Volts
 Capacitance, Anode—Grid..... 5 uuf
 Control Characteristic..... Negative
 Mounting Position..... Pin Base Down
 Temperature, Optimum, Condensed
 Mercury..... **35° to 45° C

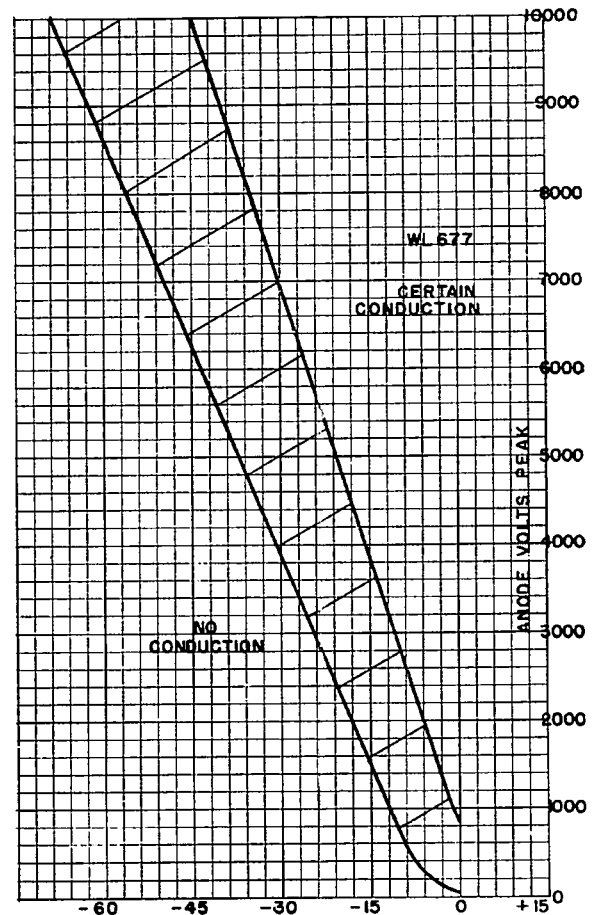
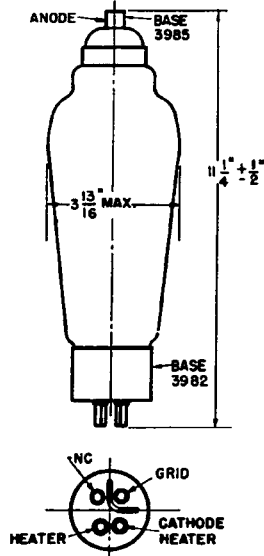
MAXIMUM RATINGS

Up to 150 Cycles

Anode Voltage, Peak Forward..... 10,000 Volts
 Anode Voltage, Peak Inverse..... 10,000 Volts
 Anode Current, Average..... *4 Amperes
 Anode Current, Peak..... *15 Amperes
 Anode Current, Surge, for design only..... *16 Amperes
 Grid Voltage, Peak Positive, Anode Negative..... 10 Volts
 Grid Voltage, Peak Negative, before Conduction..... 500 Volts
 Grid Current, Average Positive, Anode Pos..... 0.25 Ampere
 Grid Current, Peak Positive, Anode Positive..... 1 Ampere
 Averaging Time, Anode and Grid Currents..... 15 Seconds
 Temperature Range, Condensed Mercury..... **30° to 50° C

*These ratings apply only when the tube is used in circuits which limit the short circuit current to the values given.

**Measured at top edge of base.



Space between the limiting curves indicates variations which may be expected in individual tubes initially and throughout life when operated within the specified temperature range.