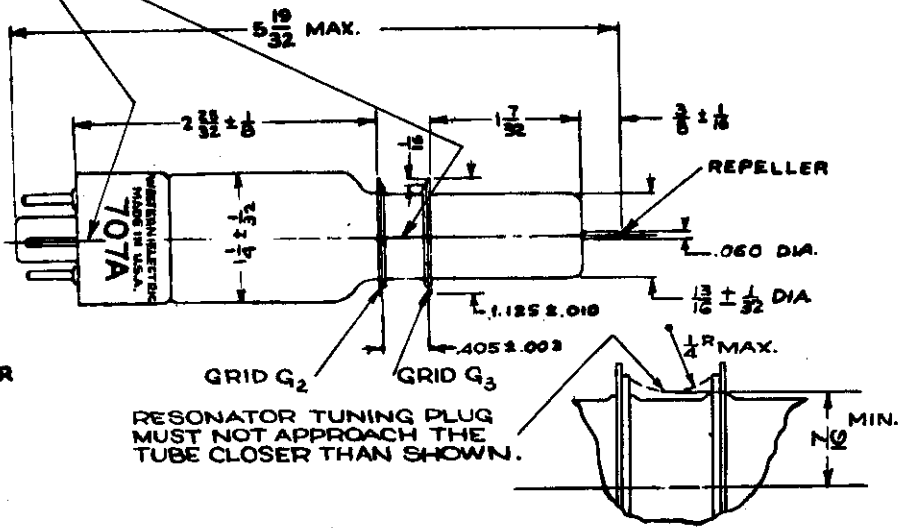
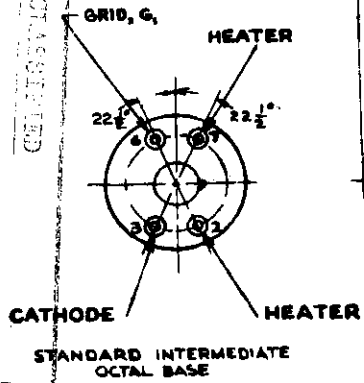


TECHNICAL INFORMATION

WESTERN ELECTRIC 707A VACUUM TUBE

CL OF DISCS SHALL NOT VARY FROM CL OF BASE BY MORE THAN $\frac{3}{32}$ MEASURED AT EITHER DISC.

UNCLASSIFIED



CLASSIFICATION

The 707A vacuum tube is an ultra high frequency oscillator tube. It has been developed for operation at a wave length of approximately 10 centimeters (3000 megacycles).

BASE AND MOUNTING

This vacuum tube employs an intermediate four pin octal type base. A resonant cavity, D-150280 has been designed to show one type of cavity which is safe to use with the tube from a mechanical standpoint. The tube may be mounted in either a horizontal or vertical position. The tube should be mounted in such a manner that it receives its support from the resonant cavity which is supported rigidly from the chassis. Free circulation of air should be permitted to cool the tube.

HEATER RATING

Heater Voltage	6.3 volts
Nominal heater current	.65 amperes

MAXIMUM RATINGS

Resonant cavity voltage, G ₂ & G ₃	325 volts
Accelerator grid voltage, G ₁	325 volts

OPERATING CONDITIONS AND CHARACTERISTICS

	Normal		Max. Ratings
Heater Voltage	6.3	6.3	6.3 volts
Potential difference between heater and cathode	0	0	50 volts
Accelerator grid voltage, G ₁	250	300	325 "
Resonant cavity voltage, G ₂ & G ₃	250	300	325 "
Cathode current*	25	30	40 milliamperes
Repeller voltage range**	0 to -250	0 to -275	-300 volts
Nominal power output	40	75 milliwatts	
Nominal wave length range with suitable cavity ***	8-12 cm (3750 to 2500 mc)		

- * The cathode current is all of the electron current from the cathode.
- ** There will be two or three oscillating conditions within these repeller voltage ranges. The frequency of these, will be determined by the resonant cavity and will be the same.
- *** For optimum oscillation, the frequency may be varied approximately 5 megacycles by a 10 volt change in the repeller to cathode voltage.

Reference: Army Navy Electron
 Tube Security Classification Lists
 15 MAY 1945, 1 NOV 1945, FILE 5.3
 Signed *[Signature]*