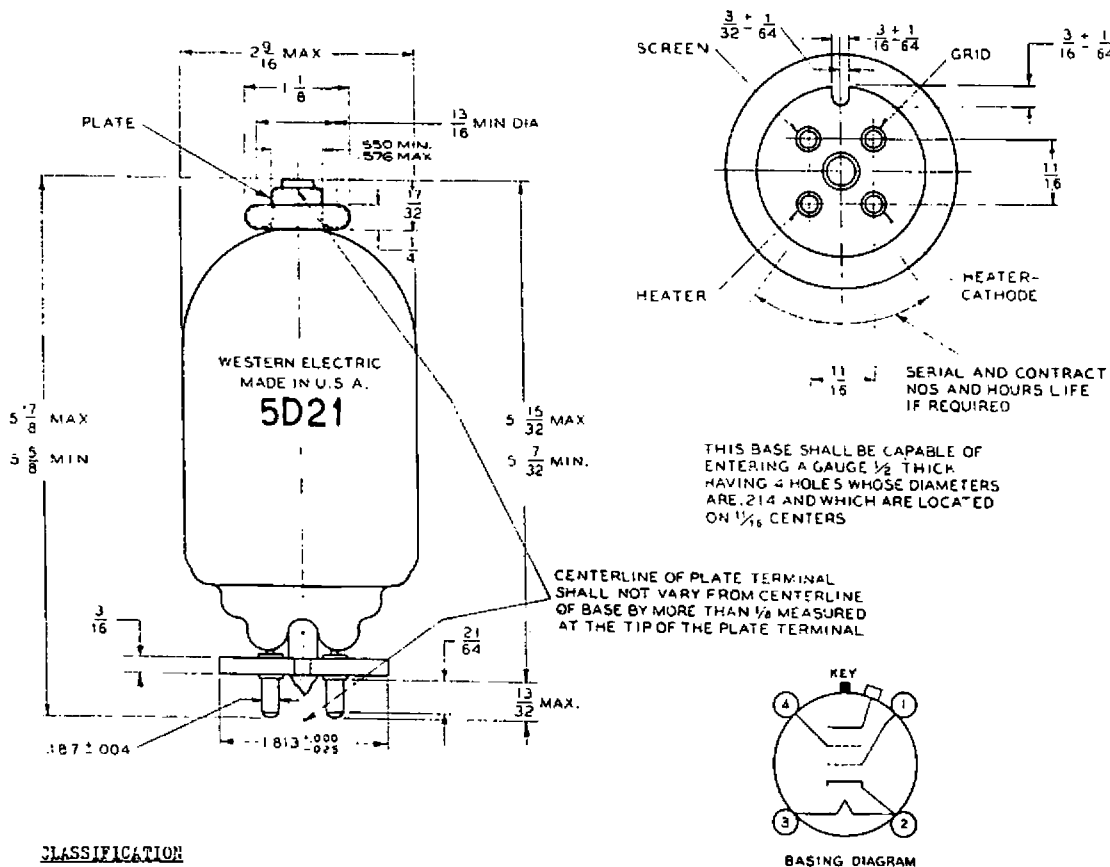


TECHNICAL INFORMATION
WESTERN ELECTRIC 5D21 VACUUM TUBE



CLASSIFICATION

Special purpose tetrode with indirectly heated cathodes.

SOCKET AND MOUNTING

This tube employs a Western Electric 152A or similar type socket. The plate terminal is located at the top of the bulb. There should be a free circulation of air around the bulb or some other method used to insure proper cooling.

The dimensions and arrangement of terminal connections are shown in the above drawing.

HEATER RATING

- *Heater voltage 26.0 ± 10% volts a-c or d-c
- Nominal heater current 2.10 amperes
- Required heating time 3 minutes

OPERATION - MAXIMUM RATINGS

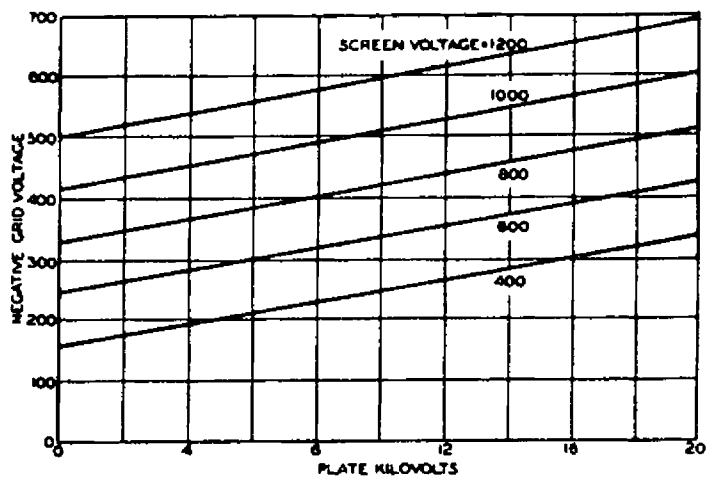
- ***Direct plate voltage 20,000 volts
- Direct screen voltage 1,250 volts
- Average plate current 30 milliamperes
- ****Peak plate current 15 amperes
- Plate dissipation 60 watts
- Screen dissipation 8 watts
- Positive peak control-grid 300 volts
- Direct control-grid bias -1000 volts

INTER-ELECTRODE CAPACITANCES

- Nominal Values
- Control-grid to plate 1.2 µmf
 - Input - Control-grid to cathode and screen 35.0 µmf
 - Output- Plate to cathode and screen 7.0 µmf

- * The heater is designed for operation from a 24 volt battery supply. The standard heater rating for such use is 25 volts. It must be recognized that under battery charging conditions the voltage may be as high as 28 volts. Longest life is to be obtained with the lowest heater voltage which will furnish the required cathode emission. Where a well regulated heater supply is available, the heater should be operated at 25 volts.
- ** In applications where the peak current drawn is less than the maximum rating the heating time may be reduced in proportion. In no case, however, can it be less than 1/2 minute.
- *** Due to the high plate voltage, this tube may spark internally a few times when the voltage is first applied. This is not an indication that the tube is defective.
- **** The product of the pulse duration in seconds and the pulse recurrence frequency in cycles per second shall not exceed 0.001. At higher duty cycles, the peak current must be reduced. In case the peak current drawn from the tube exceeds 5 amperes the tube shall not be operated longer than 5µsec in any 100µsec interval. For peak currents less than 5 amperes the plate rating of 60 watts shall determine the pulse interval.

MAXIMUM CUT-OFF CHARACTERISTICS



TUBES BELOW MAXIMUM LIMITS WILL CUT OFF AT LOWER NEGATIVE GRID VOLTAGES

GRID CHARACTERISTICS

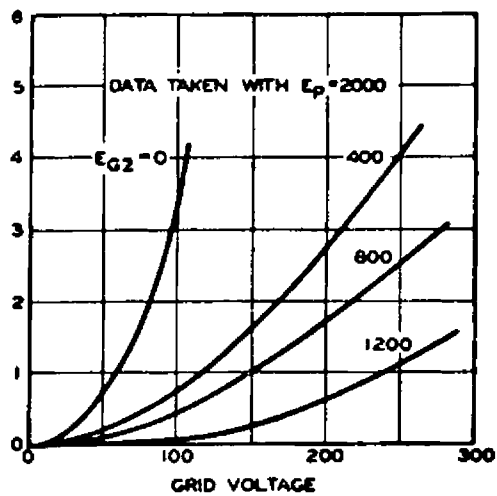


PLATE CHARACTERISTICS

