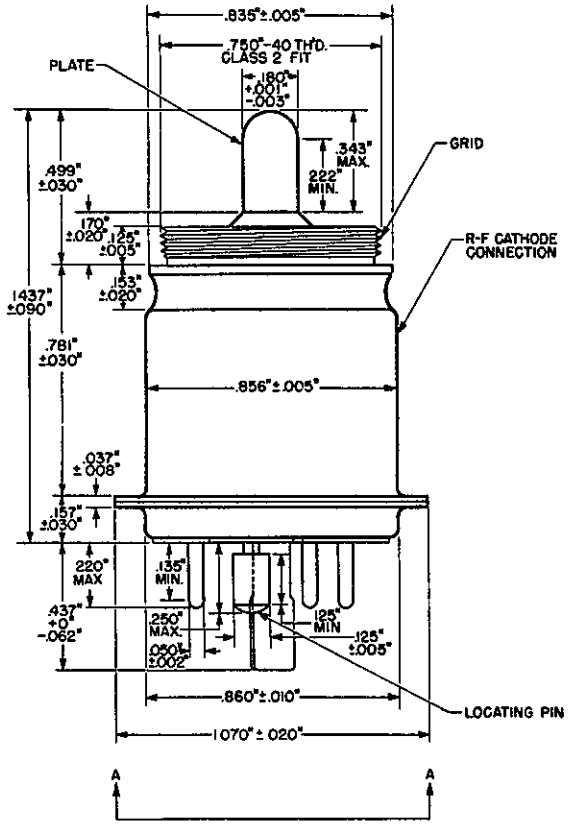
OK to send to Plant Dept. A.D.N. 7/25/49

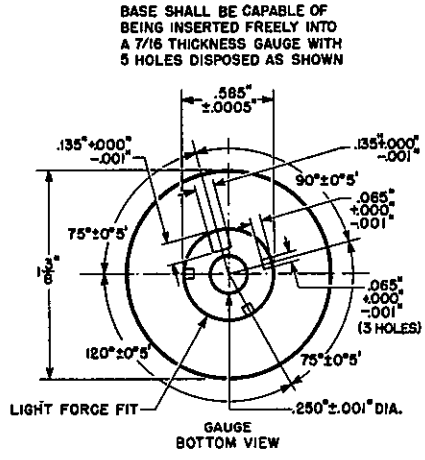
ADVANCE ELECTRON TUBE DATA SHEET

WESTERN ELECTRIC 416 A ELECTRON TUBE

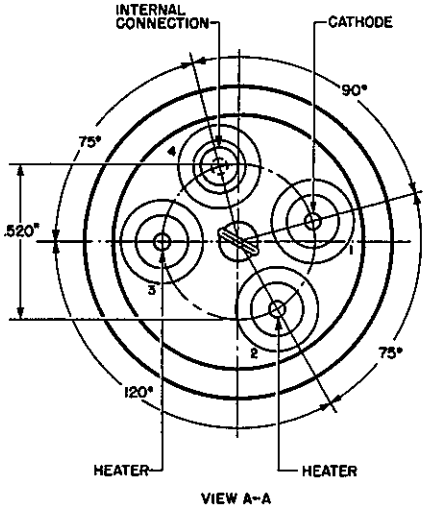
416 A
TRIODE
SHF



NOTE: SURFACES OF R-F CATHODE, GRID AND PLATE CONNECTIONS GOLD PLATED



GAUGE
BOTTOM VIEW



VIEW A-A

DESCRIPTION

The 416A is a disc-seal planar type triode designed for use as an amplifier or frequency multiplier at frequencies in the order of 4000 megacycles.

MAXIMUM RATINGS, ABSOLUTE VALUES

Plate Voltage	250	volts
Grid Voltage	+1.0	volt
Plate Current	33	milliamperes
Grid Current	10	milliamperes
Plate Dissipation	7.5	watts
Plate Seal Temperature	125°	Centigrade
Grid Seal Temperature	100°	Centigrade
Heater-Cathode Voltage	45	volts

Western Electric

GENERAL CHARACTERISTICS

ELECTRICAL DATA

Heater Voltage	6.3	volts
Heater Current	1.85	amperes
Amplification Factor	300	
Transconductance (I_b = 30 ma)	50000	micromhos
Direct Interelectrode Capacitances		
Grid to Plate	1.25	μμf
Grid to Shell*	7.5	μμf
Plate to Shell*	0095	μμf
Cathode to Shell	42.5	μμf

*Cathode connected to shell through cathode to shell capacitance

MECHANICAL DATA

Cathode	Unipotential
Mounting Position	Any
Weight, Approximate	1 ounce

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Plate Voltage	200	volts
Plate Current	30	milliamperes
Plate Dissipation	6	watts
Cathode Bias Resistor	250	ohms
Grid Supply Voltage	8	volts
Frequency	4000	megacycles
Gain (50 Milliwatts Output)	9	decibels
Gain (500 Milliwatts Output)	3	decibels
Band Width (3 db Down)	100	megacycles

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