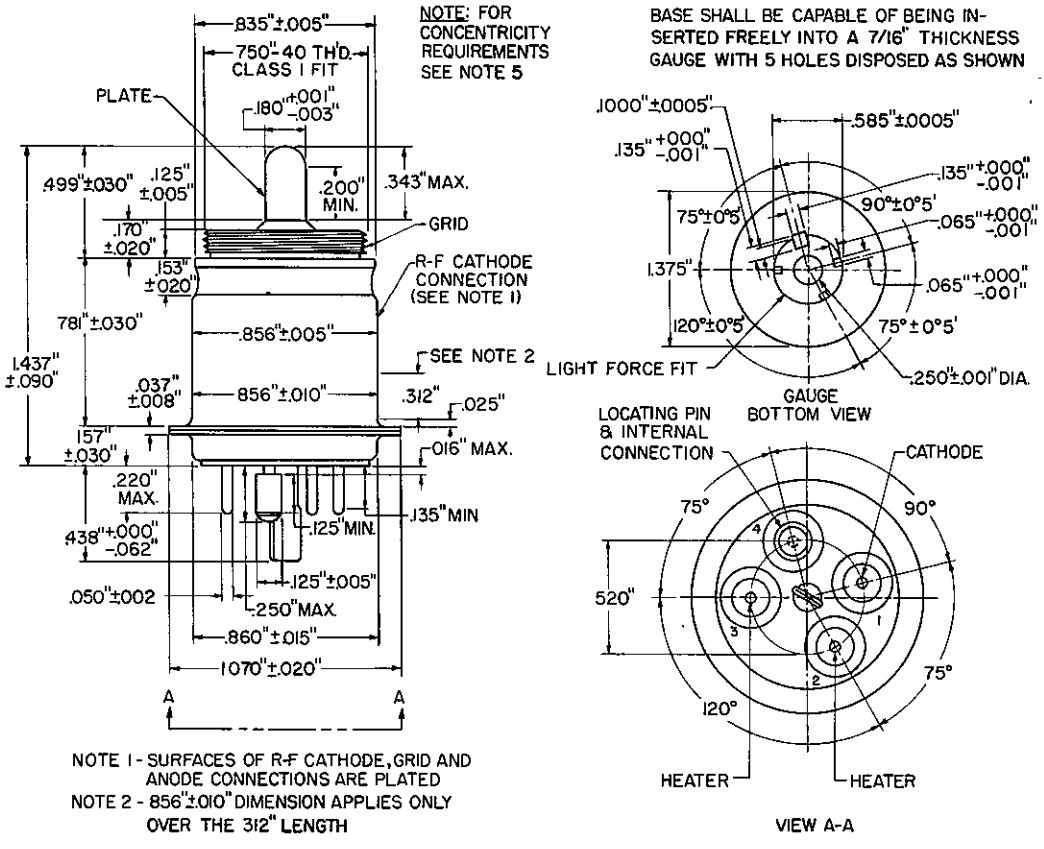
ADVANCE ELECTRON TUBE DATA SHEET

WESTERN ELECTRIC 416B* ELECTRON TUBE



DESCRIPTION

The 6280/416B* is a planar type triode designed for use as an amplifier or frequency multiplier at frequencies in the order of 4000 megacycles.

CHARACTERISTICS

Heater Voltage	6.3 volts
Plate Voltage	200 volts
Frequency	4000 megacycles
Gain (50 milliwatts output)	9 decibels
Bandwidth (3 db down)	100 megacycles

GENERAL CHARACTERISTICS

ELECTRICAL DATA

	Min.	Bogey	Max.	
Heater Voltage(3)	---	6.3	---	volts
Heater Current	---	1.18	---	amperes
Amplification Factor	---	200	---	
Transconductance (I_b = 30 ma)	---	50000	---	micromhos
Direct Interelectrode Capacitances				
Grid to Plate	1.25	1.45	1.60	uuf
Grid to Shell(4)	8.5	11.2	17.0	uuf
Grid to Shell,(4) Hot (E_f=6.1 v; E_b=0 v)	7.6	8.7	10.3	uuf
Plate to Shell(4)	---	.019	.050	uuf
Cathode to Shell	30	42.5	57	uuf

MECHANICAL DATA

Cathode	Unipotential
Mounting Position	Any
Weight, Approximate	1 ounce
Socket (Equivalent to or)	KS14134

MAXIMUM RATINGS, ABSOLUTE VALUES

Plate Voltage	270 volts
Grid Voltage	+1.5 volts -15.0 volts
Plate Current	33 milliamperes
Grid Current	15 milliamperes
Plate Dissipation	7.5 watts
Plate Seal Temperature	150° Centigrade
Grid Seal Temperature	100° Centigrade
Heater-Cathode Voltage	45 volts

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Plate Voltage	200 volts
Plate Current	30 milliamperes
Bias Circuit	
Cathode Bias Resistor	260 ohms
Grid Supply Voltage	8 volts
Frequency	4000 megacycles
Gain (50 Milliwatts Output)	9 decibels
Gain (500 Milliwatts Output)	5 decibels
Band Width (3 db Down)	100 megacycles

Note (3): For optimum life, heater may be supplied from a source of 10.8 ± 0.2 volts through a circuit resistance of 4.16 ohms.

Note (4): Cathode connected to shell through cathode to shell capacitance.

Note (5): With the .750"-40 thread screwed into a guage having a thread with a .750"-40 class 1 fit, the .856", 1.070" and .180" diameters must fit in cylinders concentric with the .750"-40 thread and having diameters of .895" x .720" long; 1.135" x .157" long; and .210" x .375" long. Allowances for these tolerances must be made in any circuit design.

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

PRINTED IN U.S.A.