



E I M A C
Division of Varian
SAN CARLOS
CALIFORNIA

152TL
LOW-MU TRIODE
•
MODULATOR
OSCILLATOR
AMPLIFIER

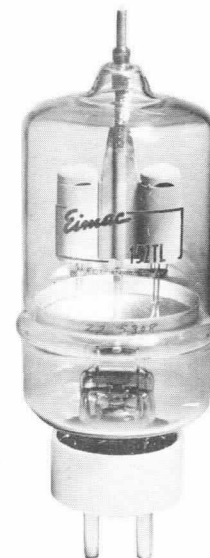
GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten	
Voltage	5.0 or 10.0 volts
Current	12.5 or 6.25 amperes
Amplification Factor (Average)	12
Direct Interelectrode Capacitances (Average)	
Grid-Plate	4.4 pF
Grid-Filament	4.5 pF
Plate-Filament	0.7 pF
Transconductance ($i_b = 500$ ma., $E_b = 3000$ V, $E_c = -85$ V)	7150 umhos

MECHANICAL

Base	Special 4 pin, No. 5000B
Basing	RMA type 4BC
Maximum Overall Dimensions	
Length	7.625 inches
Diameter	2.563 inches
Net Weight	7 ounces
Shipping weight (Average)	2.0 pounds



AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR

Class B

	ZERO GRID CURRENT OPERATION — 2 TUBES			TYPICAL OPERATION 2 TUBES			MAX. RATING
	1500	2000	3000	1500	2000	3000	
DC Plate Voltage	1500	2000	3000	1500	2000	3000	3000 volts
Max.-Signal DC Plate Current, per tube*	—	—	—	—	—	—	450 ma.
Plate Dissipation, per tube*	—	—	—	—	—	—	150 watts
DC Grid Voltage (approx.)	-105	-160	-260	-105	-160	-260	volts
Peak AF Grid Input Voltage	210	320	520	500	620	675	volts
Zero-Signal DC Plate Current	135	100	65	135	100	65	ma.
Max.-Signal DC Plate Current	286	260	220	570	500	335	ma.
Max.-Signal Driving Power (approx.)	—	—	—	15	13	3	watts
Effective Load, Plate-to-Plate	5100	10500	24000	5500	9000	20400	ohms
Max.-Signal Plate Power Output	130	220	370	560	700	700	watts

*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR

Class C *Telegraphy

(Key down conditions without modulation)

	TYPICAL OPERATION — 1 TUBE			MAX. RATING
	1500	2000	3000	
DC Plate Voltage	1500	2000	3000	3000 volts
DC Plate Current	333	300	250	450 ma.
DC Grid Current	45	42	40	75 ma.
DC Grid Voltage	-250	-300	-400	volts
Plate Power Output	350	450	600	watts
Plate Input	500	600	750	watts
Plate Dissipation	150	150	150	150 watts
Peak RF Grid Input Voltage (approx.)	400	455	550	volts
Driving Power (approx.)	16	18	20	watts

*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.



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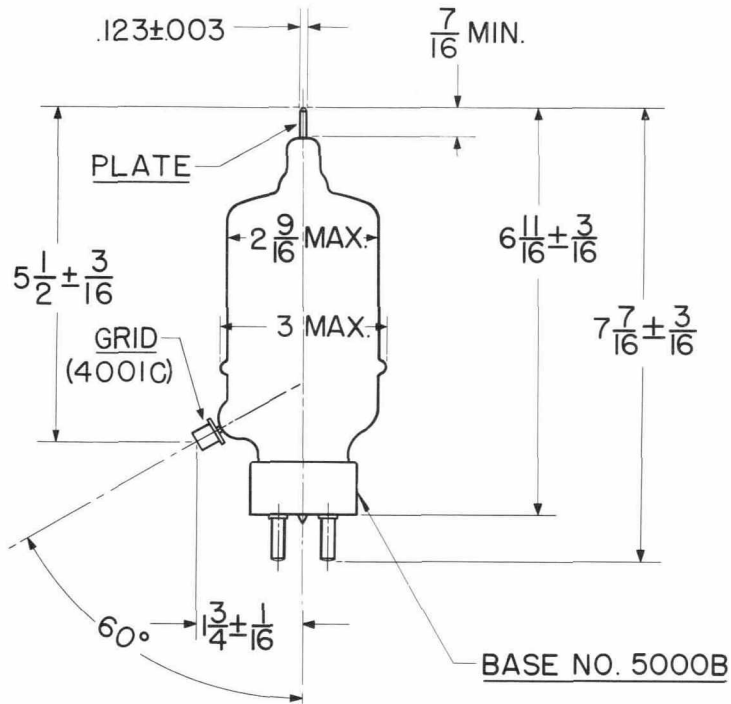
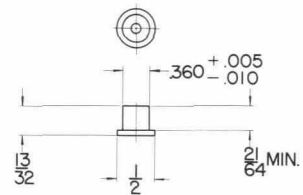
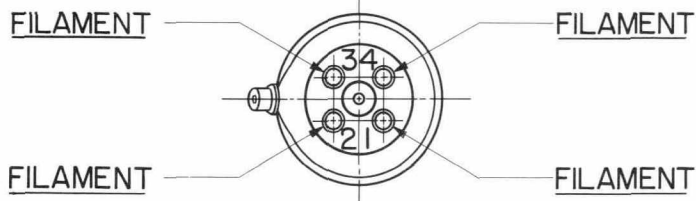
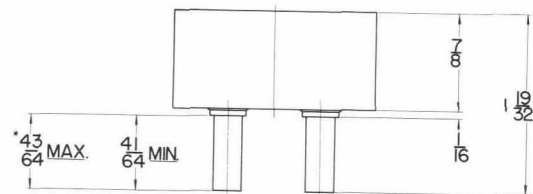


PLATE CAP
(SEE TUBE OUTLINE DRAWING)

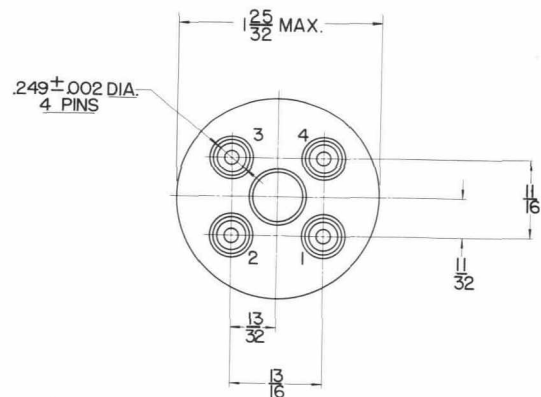
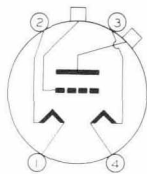
GRID CAP
NO. 4001C



BASE NO. 5000B



4BC

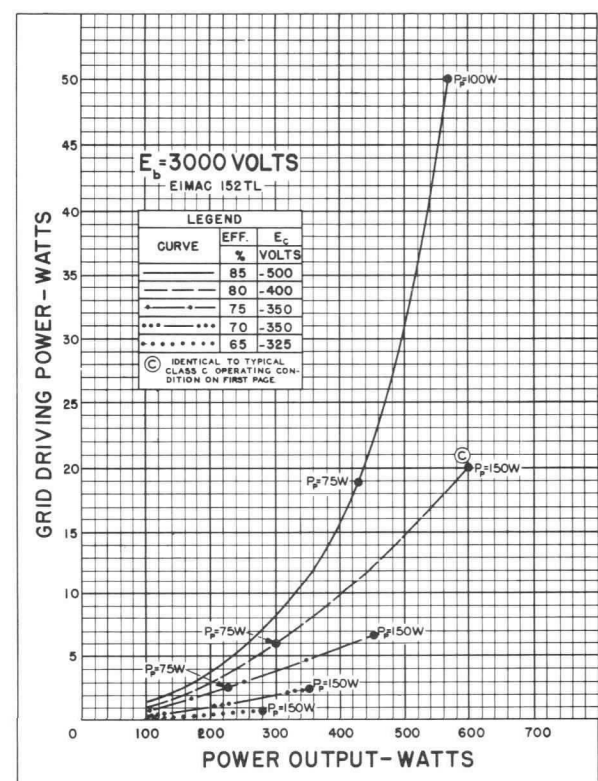
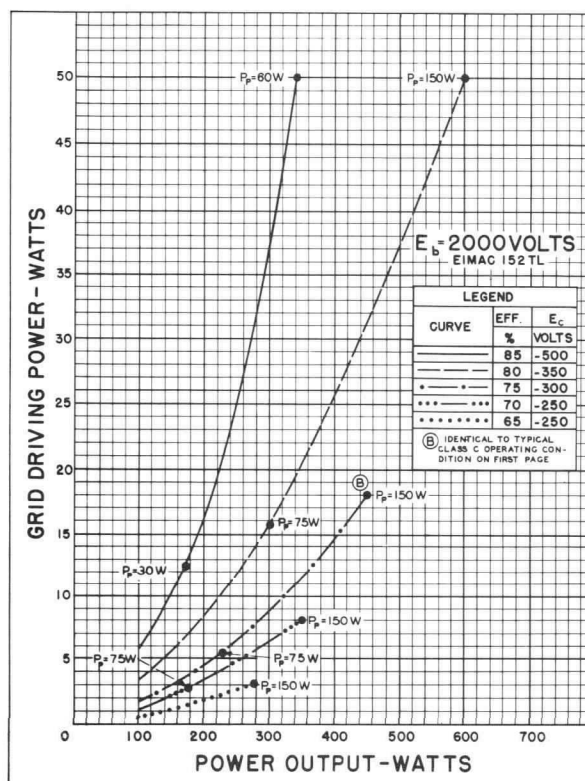
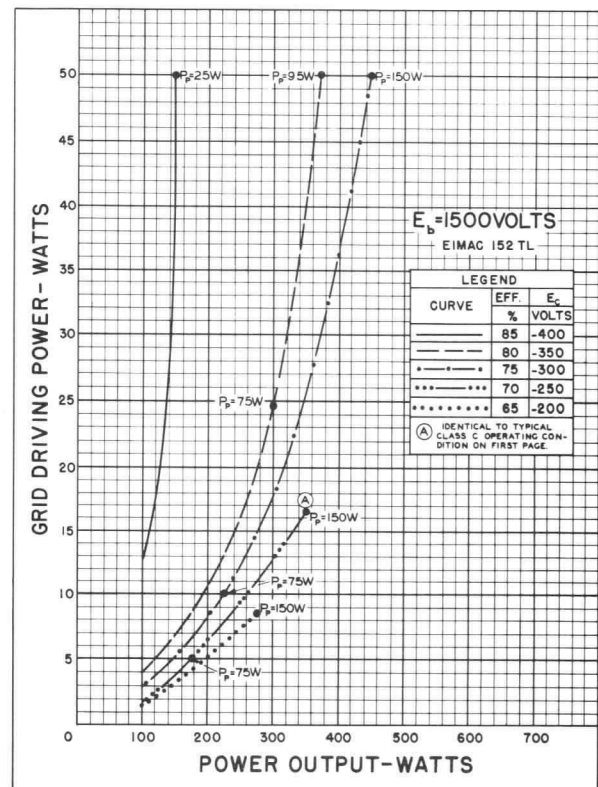


*ON FINISHED TUBE ADD .060 FOR SOLDER

DRIVING POWER vs. POWER OUTPUT

The three charts on this page show the relationship of plate efficiency, power output and grid driving power at plate voltages of 1500, 2000 and 3000 volts. These charts show combined grid and bias losses only. The driving power and power output figures do not include circuit losses. The plate dissipation in watts is indicated by P_p .

Points A, B, and C are identical to the typical Class C operating conditions shown on the first page under 1500, 2000, and 3000 volts respectively.





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