

GAMMATRON

Engineering Data Sheet
Number . . . 255-2

GAMMATRON
TYPE
255
MEDIUM POWER
GRIDLESS TRIODE

PHYSICAL DATA

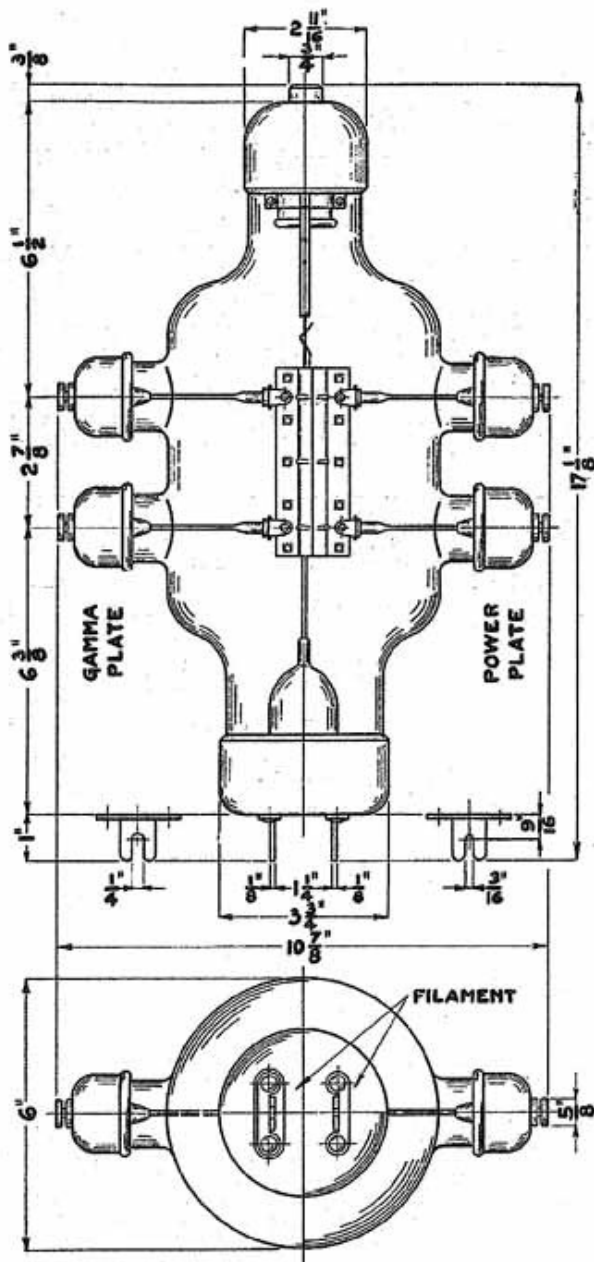
Power Plate	Tantalum
Gamma Plate	Tantalum
Filament	Tungsten
Envelope	Nonex Glass
Plate Connections	Individual Caps
Filament Clips (Mounted)	Type HK-255-65
Net Weight	3¼ Pounds
Shipping Weight	22 Pounds
Maximum Height	17½ Inches
Maximum Width	10⅞ Inches

ELECTRICAL DATA

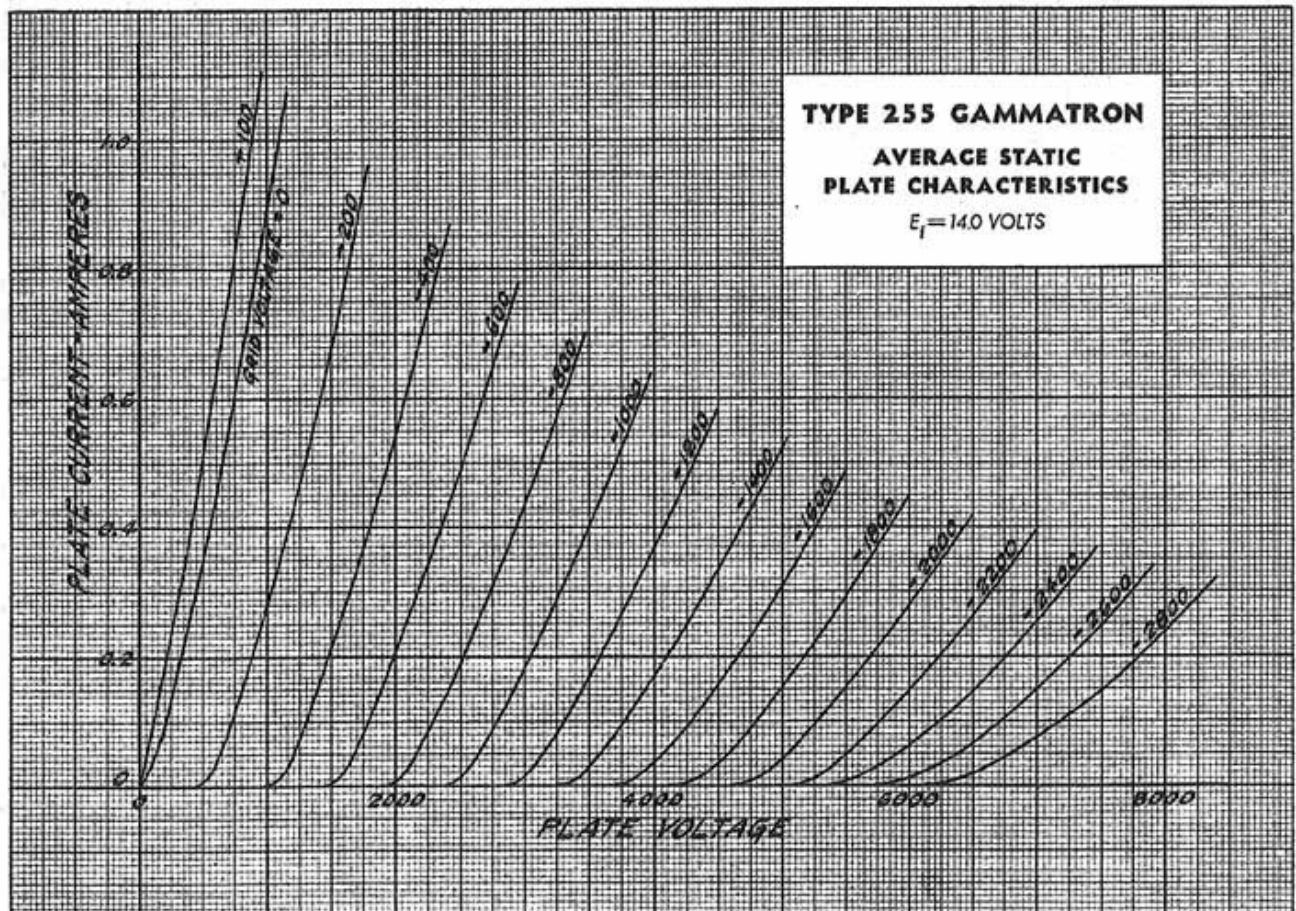
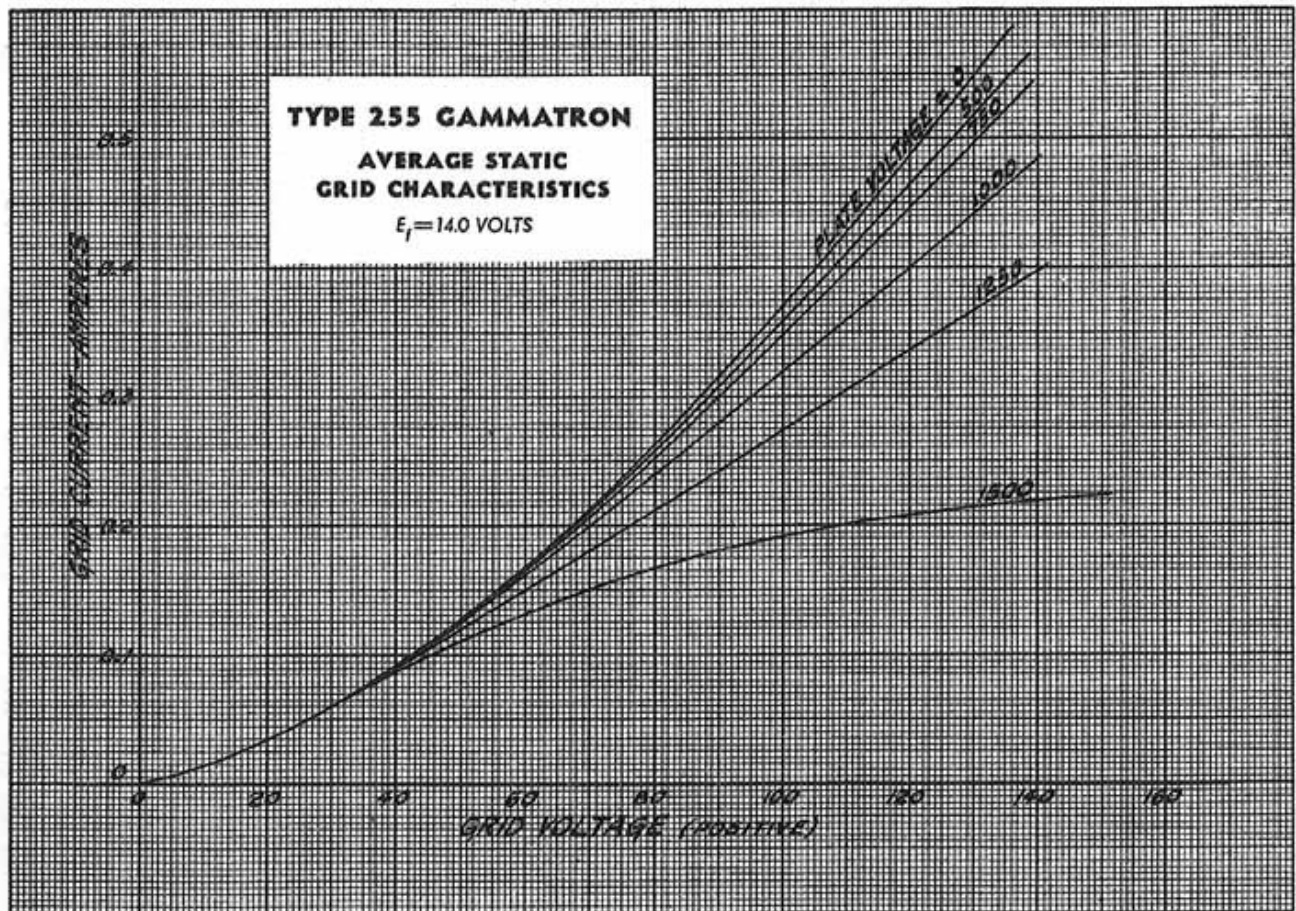
Filament Voltage	14.0 Volts
Filament Current	30 Amps.
Normal Plate Dissipation	500 Watts
Maximum Average Plate Current	1.0 Amp.
Maximum Average Plate Voltage	5000 Volts
Maximum Average Control Current	0.25 Amp.
Peak Filament Emission	2.5 Amps.
Average Dynamic Plate Resistance	1000 Ohms
Average Amplification Constant	3

Inter-Electrode Capacities

Gamma-Power Plate	5. mmfd.
Filament-Gamma Plate	12. mmfd.
Filament-Power Plate	7. mmfd.



SOUTH SAN FRANCISCO
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HEINTZ AND KAUFMAN, LTD.

South San Francisco, California

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TYPE 255 GAMMATRON PERFORMANCE DATA

CLASS "A" AUDIO AMPLIFIER (Single Tube)

<u>Plate Volts</u>	<u>Plate Amp.</u>	<u>Grid Volts</u>	<u>Plate Supply Watts</u>	<u>Load Ohms</u>	<u>Output Watts</u>	<u>Efficiency Per cent</u>
1500.	0.34	- 350.	500.	5000.	60.	12.
2000.	0.25	- 570.	500.	6000.	125.	25.
2500.	0.20	- 800.	500.	8000.	175.	35.
3000.	0.17	-1000.	500.	20000.	180.	36.

Grid swings to zero and draws no current
Harmonic distortion approximately 5%

CLASS "B" AUDIO AMPLIFIER (Two Tubes)

<u>D.C. Plate Volts</u>	<u>D.C. Plate Amperes</u>	<u>Grid Volts</u>	<u>Load (P-P) Ohms</u>	<u>Plate Supply Watts</u>	<u>Plate Loss</u>	<u>Output Watts</u>	<u>Eff. %</u>
1500.	0.43	- 600.	4000.	650.	420.	230.	35.
2000.	0.60	- 800.	4000.	1200.	750.	450.	38.
2500.	0.69	-1000.	5000.	1700.	1000.	700.	41.
3000.	0.83	-1200.	5000.	2500.	1400.	1100.	44.
3500.	0.98	-1400.	6000.	3000.	1600.	1400.	47.
4000.	0.91	-1700.	7000.	3600.	1800.	1800.	50.
5000.	0.90	-2100.	10000.	4500.	2000.	2500.	56.
6000.	0.84	-2600.	14000.	5000.	2000.	3000.	60.
8000.	0.75	-3300.	23000.	6000.	2000.	4000.	67.

Grids swing to zero and draw no current

CLASS "B" RADIO AMPLIFIER (Single Tube)

<u>D.C. Plate Volts</u>	<u>D.C. Plate Amperes</u>	<u>Grid Volts</u>	<u>Load Ohms</u>	<u>Plate Sup. Watts</u>	<u>Plate Loss</u>	<u>Output Watts</u>	<u>Eff. %</u>
1500.	0.087	- 600.	1500.	130.	102.	28.	21.5
2000.	0.120	- 800.	1500.	240.	188.	52.	21.5
2500.	0.126	-1000.	2000.	315.	235.	80.	25.
3000.	0.155	-1200.	2000.	465.	347.	118.	25.
3500.	0.182	-1400.	2000.	635.	473.	162.	26.
4000.	0.179	-1700.	2500.	715.	520.	195.	27.
5000.	0.142	-2100.	4500.	710.	490.	220.	31.
6000.	0.126	-2600.	6500.	755.	500.	255.	34.
8000.	0.097	-3300.	12000.	775.	500.	275.	36.

Grid swings to zero and draws no current

July 17, 1935