Engineering Data Sheet
Type 354-F-1
(Tentative)

TYPE HK-354-F

SPECIAL SPECIFICATIONS AND APPLICATIONS

This sheet is in supplement to Engineering Data Sheets 354-1 and 354-C-1. This tube is normally supplied in the high frequency style (grid connection on side of the blank) and the physical and electrical data of sheet 354-C-1 applies. On special order this tube will be supplied in the standard style (grid connection on base) and the physical and electrical data of sheet 354-1 will apply. The following exceptions in electrical data should be noted and are applicable to both styles.

Maximum Average Grid Current..0.075 Amps.
Average Plate Impedance .....10,000 Ohms
Average Amplification Factor.....50

RADIO FREQUENCY AMPLIFIER—CLASS "C"
(SINGLE TUBE)

Plate Supply Volts	Plate Milli-amperes	Grid Bias Volts	Grid Milli-amperes	Effective Excitation Volts	Driving Power Watts	Power Input Watts	Load Resistance Ohms	Power Output Watts	Plate Loss Watts	Plate Efficiency Per Cent
1500	390	– 85	75	247	28	450	2530	300	150	67
2000	295	–135	75	290	31	587	3410	437	150	74
2500	260	–225	75	357	38	650	4930	500	150	77
3000	255	–312	75	430	45	735	5960	615	150	80
3500	250	–368	75	470	50	875	7130	720	150	82

RADIO FREQUENCY DOUBLER
(SINGLE TUBE)

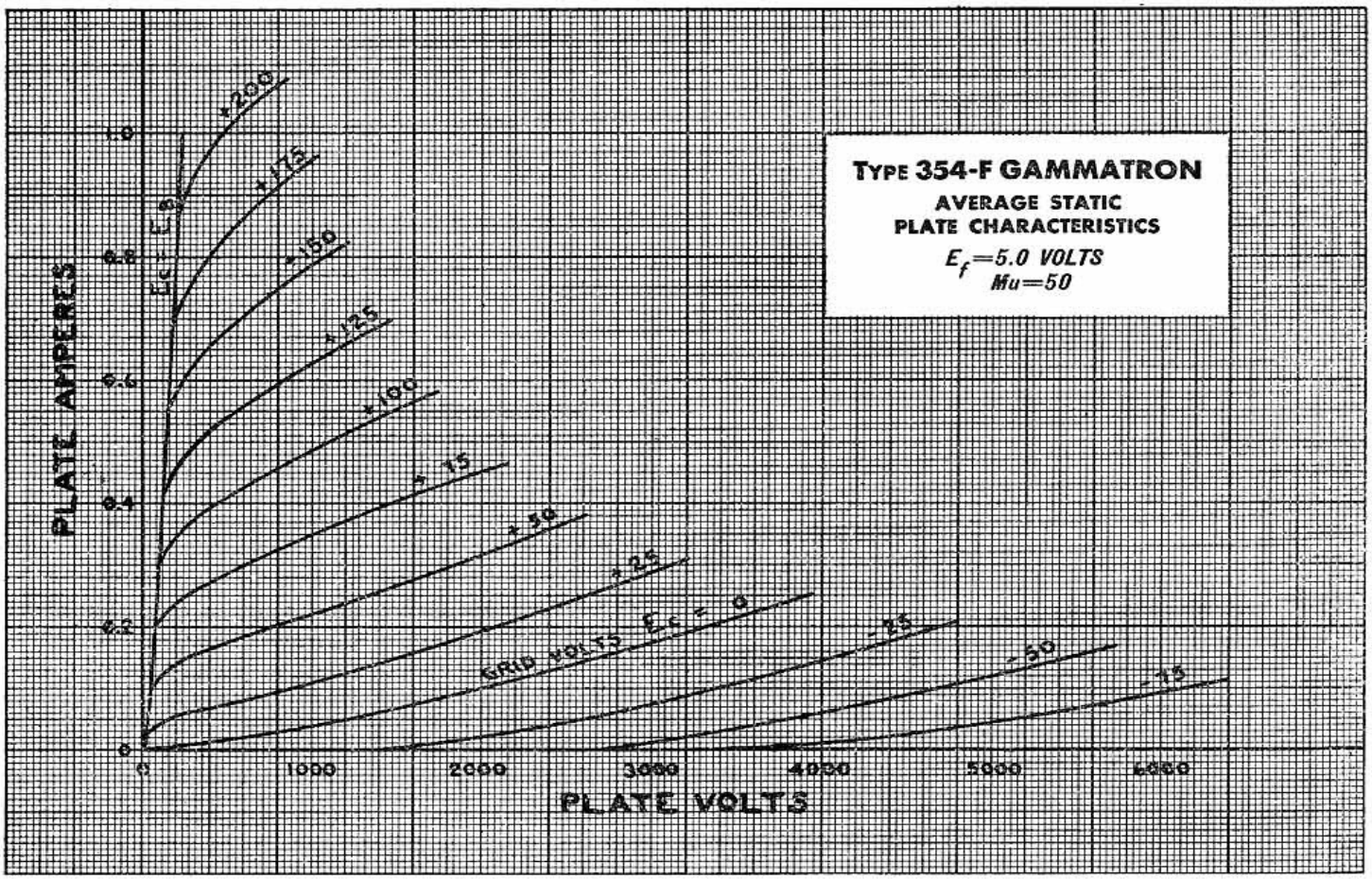
Plate Supply Volts	Plate Milli-amperes	Grid Bias Volts	Grid Milli-amperes	Effective Excitation Volts	Driving Power Watts	Power Input Watts	Load Resistance Ohms	Power Output Watts	Plate Loss Watts	Plate Efficiency Per Cent
1000	250	–243	75	360	38	250	2900	100	150	40
1500	200	–395	75	465	49	300	5200	150	150	50
2000	175	–452	75	490	50	350	7750	200	150	57

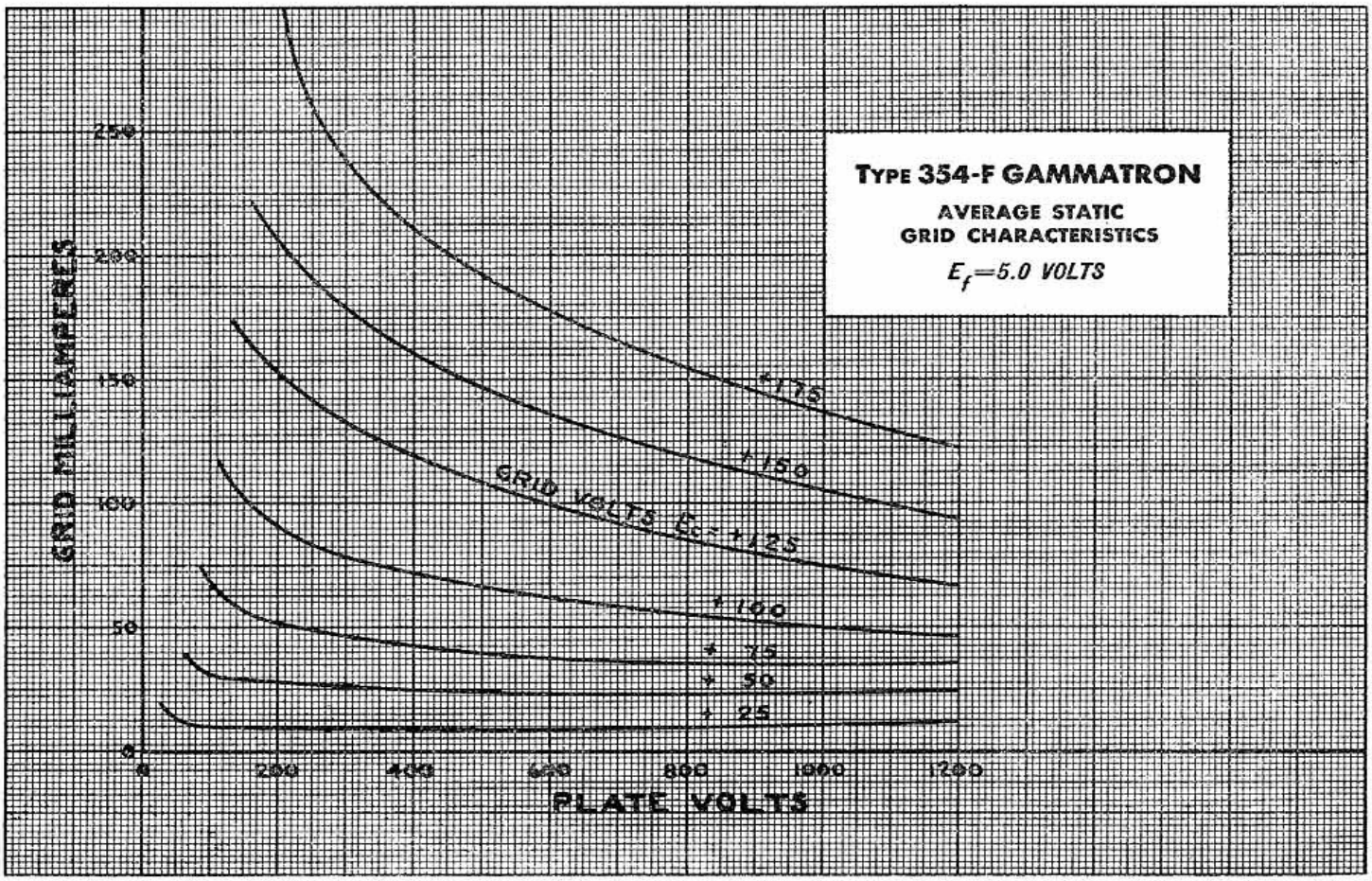
CLASS "B" AUDIO AMPLIFIER PERFORMANCE
(TWO TUBES)

Plate Potential Supply Volts	No-signal[1] Plate Milli-amperes	Grid Bias in Volts	Plate-to-Plate Load Resistance Ohms	Grid-to-Grid Peak Signal Volts	Peak[2] Driving Power Watts	Plate Current Milli-amperes	Power Output in Watts	Plate[3] Loss in Watts	Plate Efficiency in Per Cent	Driver Trans-former Ratio [See (A) below]
1500	50	–15	12,000	274	20	280	290	130	69	1:1.04
2000	50	–22½	12,000	305	20	347	445	249	64	1:1.15
2500	50	–35	20,000	310	20	300	550	200	73	1:1.17
3000	50	–45	20,000	340	20	344	725	300	70	1:1.28

(A) Suggested driver, four Type 2A3 or 6A3 tubes in push-pull parallel at 250 plate volts.
[1]Lower no-signal plate currents will cause somewhat higher distortion.
[2]Instantaneous peak power in watts drawn by grid at crest of wave. Effective power is one-half this value.
[3]Plate loss may be slightly greater at lower signal levels.

GAMMATRONS HAVE TANTALUM PLATES and GRIDS!


TYPE 354-F GAMMATRON
AVERAGE STATIC
PLATE CHARACTERISTICS
E_f=5.0 VOLTS
Mu=50
PLATE AMPERES
1.0
0.8
0.6
0.4
0.2
0
+200
+175
+150
+125
+100
+75
+50
+25
GRID VOLTS E_c = 0
-25
-50
-75
0
1000
2000
3000
4000
5000
6000
PLATE VOLTS


TYPE 354-F GAMMATRON
AVERAGE STATIC
GRID CHARACTERISTICS
E_f=5.0 VOLTS
GRID MILLIAMPERES
250
200
150
100
50
0
+175
+150
GRID VOLTS E_c = +125
+100
+75
+50
+25
0
200
400
600
800
1000
1200
PLATE VOLTS