

TYPE 4C34

GENERAL CHARACTERISTICS, ELECTRICAL

Filament	Thoriated tungsten
Voltage	11.0 volts ac
Current	4.0 amps
Average characteristics: at $E_b = 2000$ v; $I_b = 150$ ma; $E_f = 11.0$ v; $E_c = -45$ v	
Amplification factor	23
Grid-Plate Transconductance	5600 micromhos
Direct Interelectrode Capacitances:	
Grid-Plate	6.5 mmf
Input, grid-filament	6.0 mmf
Output, plate-filament	1.4 mmf
Frequency for Maximum Ratings = 60 mc	

MECHANICAL:

Type of cooling - Convection (Maximum ambient 60° C)
Base Description - Jumbo 4-large pin metal sleeve ceramic with bayonet pin
Maximum Over-all Dimensions (see outline drawing)

Length = 11.0 inches
Diameter = 3.125 inches

Base Connections: #1 #2 #3 #4
nc F nc F



CLASS "B" AUDIO-FREQUENCY POWER AMPLIFIER, TWO TUBES

	Typical Operation	Max. Ratings
D-C Plate Voltage	2000	3000 volts
Max. Sig. Plate Current (per tube)*		275 ma
D-C Max. Sig. Plate Input (per tube)*		600 watts
Plate Dissipation (per tube)*		250 watts
D-C Grid Voltage	-72	volts
Peak A-F Grid Input Voltage (grid to grid)	404	volts
Zero Signal Plate Current	60	ma
Max. Sig. Plate Current	480	ma
Max. Sig. Driving Power (approx.)	14	watts
Effective Load (plate to plate)	9600	ohms
Max. Sig. Plate Power Output	650	watts

* (Averaged over any audio-frequency cycle)

CLASS "B" RADIO-FREQUENCY POWER AMPLIFIER

(Carrier conditions per tube for use with a maximum modulation factor of 1.0)

	Typical Operation	Max. Ratings
D-C Plate Voltage	2000	2500 volts
D-C Grid Voltage	-80	volts
D-C Plate Current	150	200 ma
Plate Input		320 watts
Plate Dissipation		250 watts
Peak R-F Grid Input Voltage	125	volts
D-C Grid Current, approx.	2	ma
Driving Power, approx. (at crest of A-F cycle)	10	watts
Plate Power Output	105	watts

CLASS "C" RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR, PLATE MODULATED

(Carrier conditions per tube for use with a maximum modulation factor of 1.0)

	Typical Operation	Max. Ratings
D-C Plate Voltage	2000	2200 volts
D-C Grid Voltage	-300	-500 volts
D-C Plate Current	250	275 ma
D-C Grid Current	36	60 ma
Plate Input		600 watts
Plate Dissipation		200 watts
Peak R-F Grid Input Voltage	490	volts
Driving Power	17	watts
Plate Power Output	385	watts

CLASS "C" RADIO-FREQUENCY POWER AMPLIFIER & OSCILLATOR

(Key down condition per tube without modulation. Modulation, essentially negative may be used if positive peak of A-F envelope does not exceed 115% of carrier conditions)

	Typical Operation	Max. Ratings
D-C Plate Voltage	3000	3000 volts
D-C Grid Voltage	-400	-500 volts
D-C Plate Current	250	275 ma
D-C Grid Current, approx.	28	60 ma
Plate Input		750 watts
Plate Dissipation		250 watts
Plate R-F Grid Input Voltage [approx.]	590	volts
Driving Power, approx.	16	watts
Plate Power Output	600	watts

FREQUENCY LIMITS

The upper frequency limit at which the Type 4C34 tube may be operated at the ratings given above is 60 mc. It may be operated above this frequency if the plate voltage and power input are appropriately decreased as the operating frequency is increased and if adequate ventilation of the bulb is provided.

Max. Frequency = 60 mc	Percentage of Maximum Input		
	Class "B"	Class "C" plate mod.	Class "C" unmod.
	100%	100%	100%

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Release No. 601
September 5, 1947

