

**TRIODE
POWER AMPLIFIER**

Western Electric

DESCRIPTION

The 205F is a filamentary triode designed for use as an audio-frequency power amplifier or modulator.

CHARACTERISTICS

Filament Voltage		4.5 volts
Plate Current	} $E_b = 350$ volts; {	35 milliamperes
Power Output		} $E_c = -22.5$ volts {

GENERAL CHARACTERISTICS

ELECTRICAL DATA

Filament Voltage, A-C or D-C	4.5 volts
Filament Current	1.6 amperes
Direct Interelectrode Capacitances	
Grid to Plate	5.9 uuf
Input	4.1 uuf
Output	2.2 uuf

MECHANICAL DATA

Cathode	Coated Filament
Base	Medium 4-pin, bayonet type with bayonet pin offset
Mounting Position	Preferably vertical; if horizontal, pins #1 and #2 must lie in same vertical plane

Dimensions and pin connections shown in outline drawing on Page 5

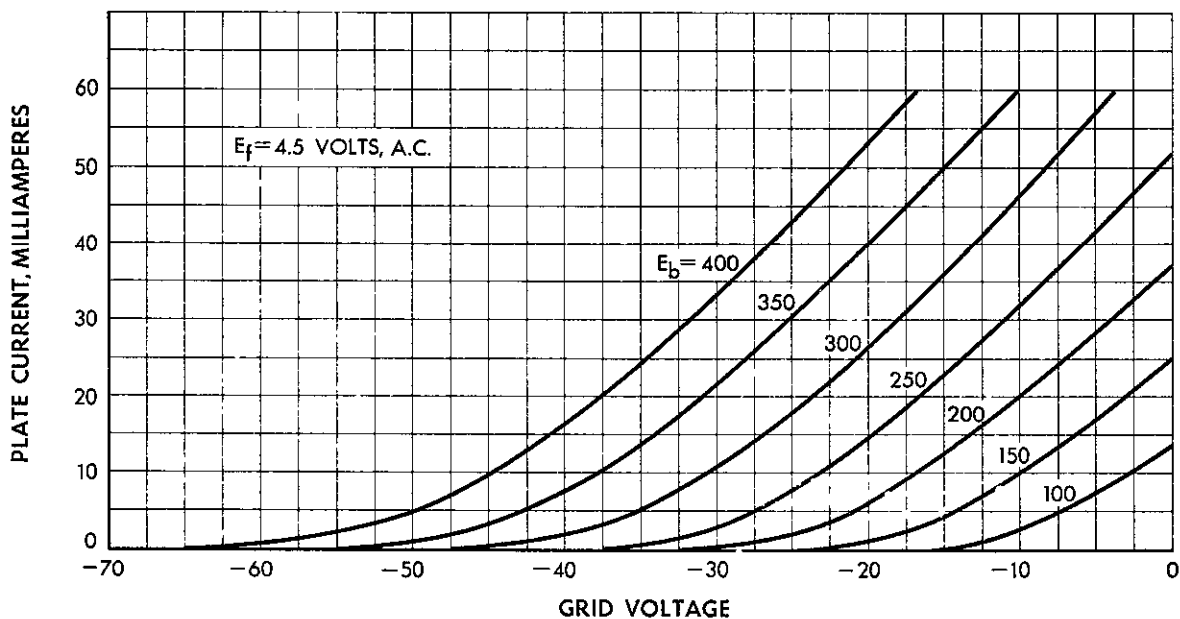
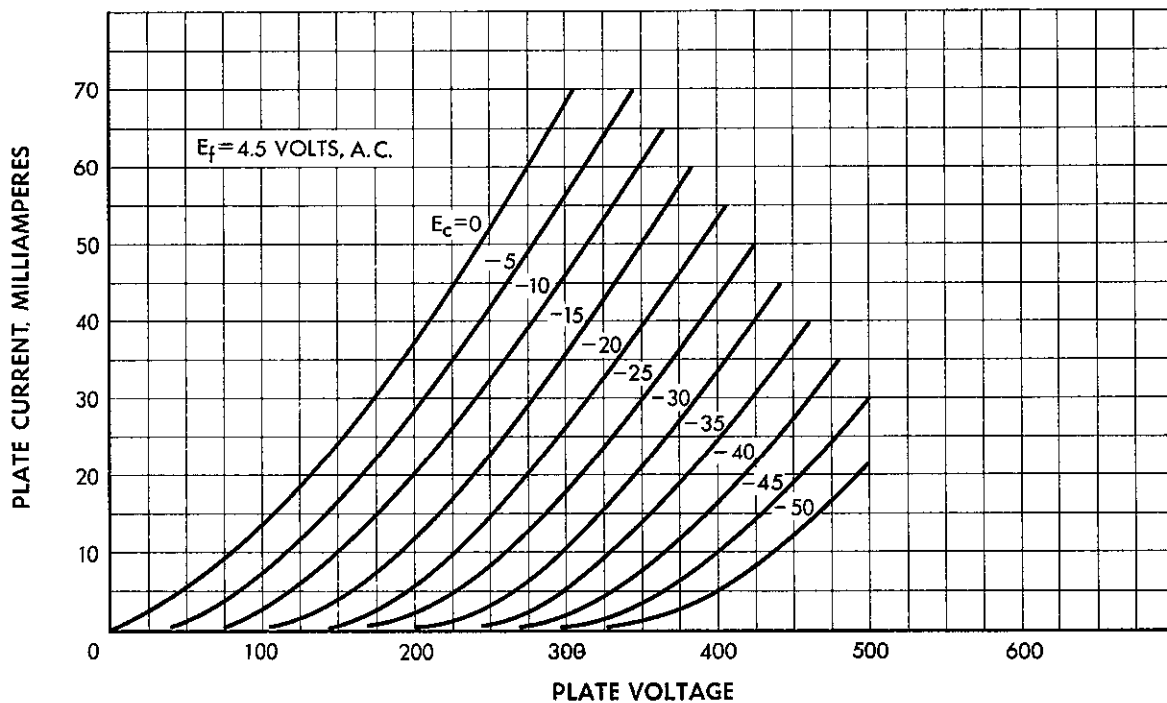
MAXIMUM RATINGS, Design-Center Values

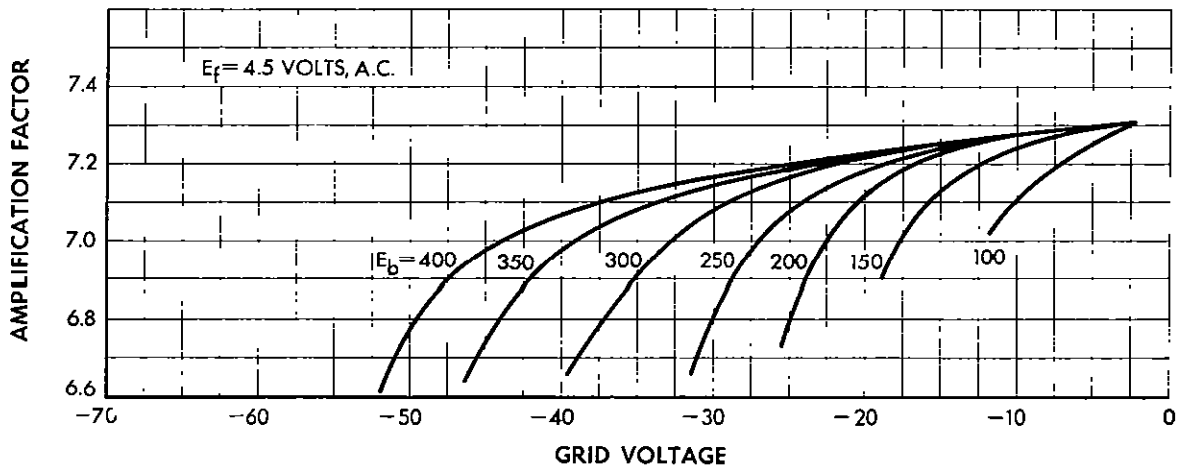
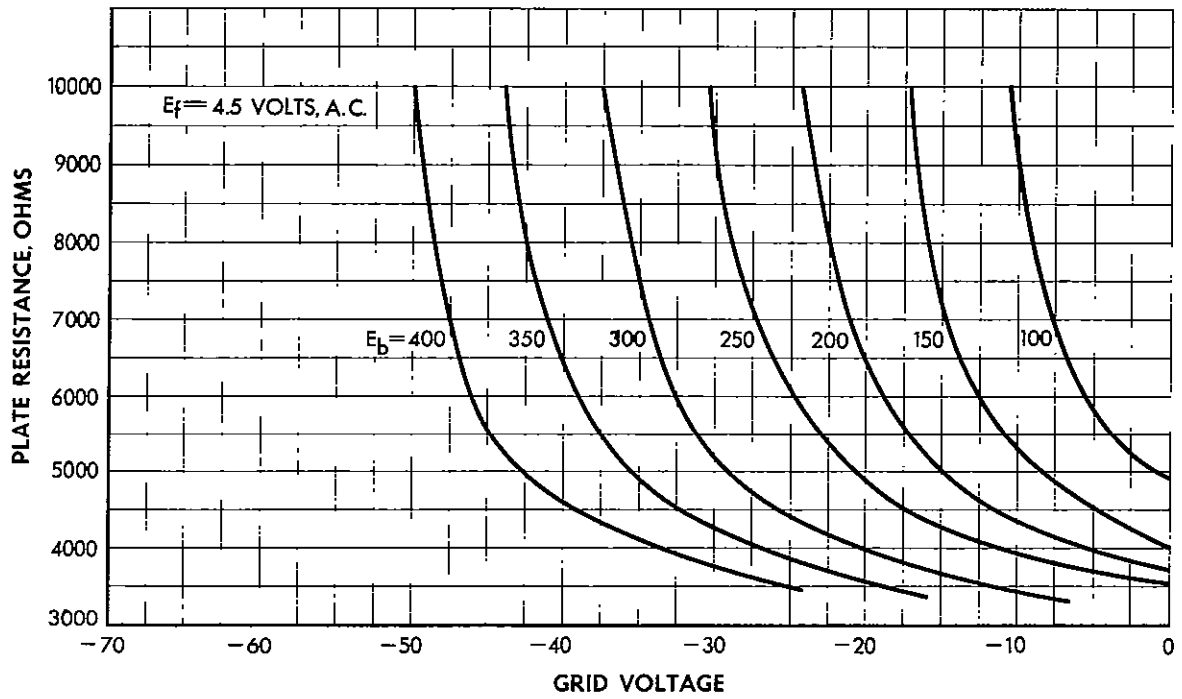
Plate Voltage	360 volts
Plate Current	50 milliamperes
Plate Dissipation	12.5 watts

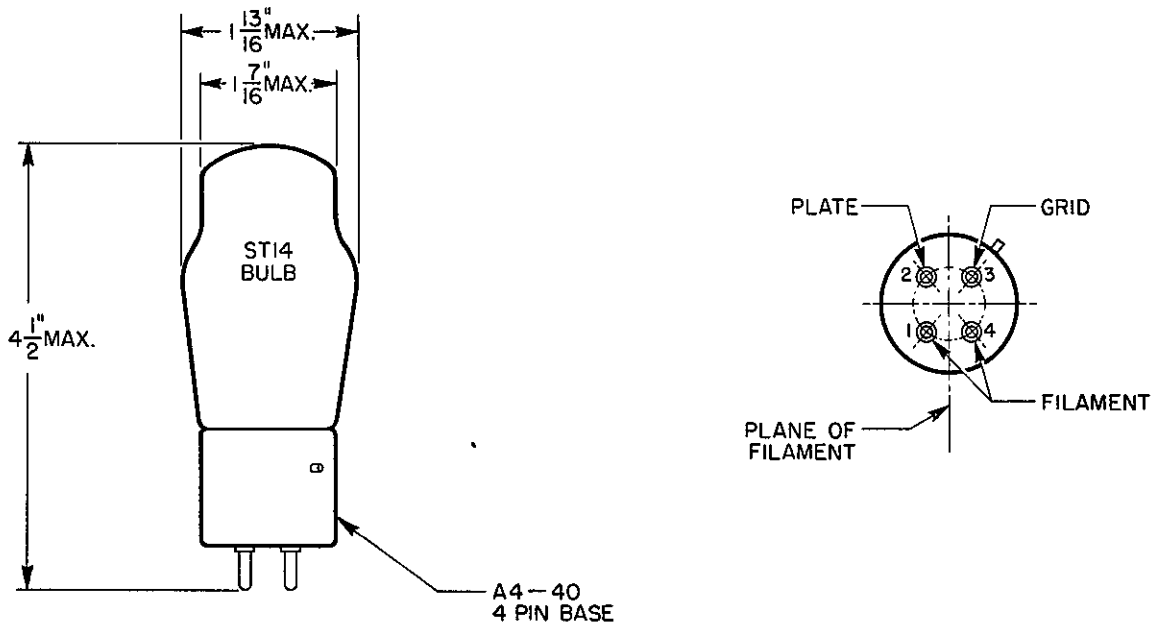
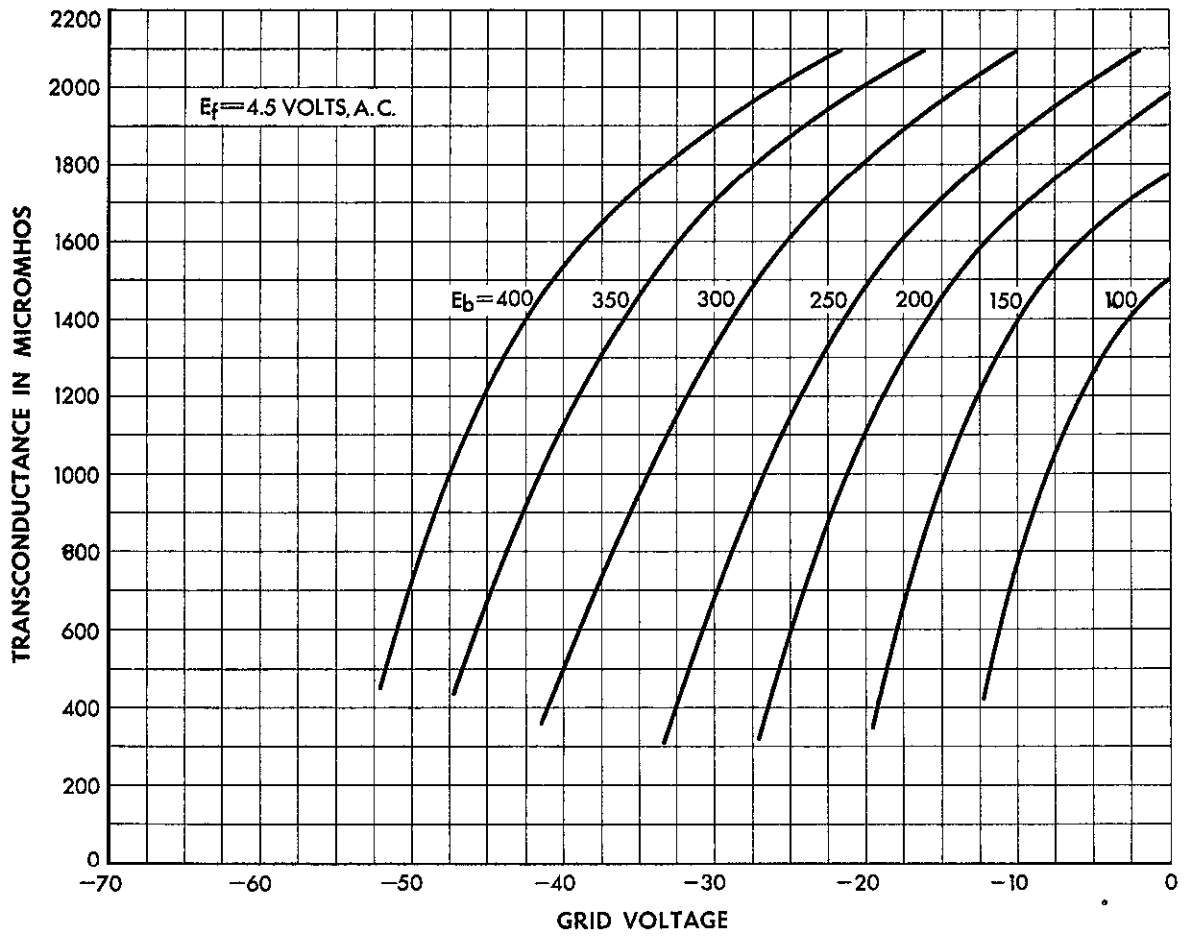
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Filament Voltage, A-C	4.5	4.5	4.5	4.5 volts
Plate Voltage	250	300	350	350 volts
Grid Voltage*	-22	-18	-22.5	-22.5 volts
Peak A-F Signal Voltage	22	18	22.5	22.5 volts
Zero Signal Plate Current	11.5	30	35	35 milliamperes
Maximum Signal Plate Current	12	30.5	36	36 milliamperes
Transconductance	1350	1880	1950	1950 micromhos
Plate Resistance	5300	3800	3700	3700 ohms
Load Resistance	12000	8000	4000	8000 ohms
Amplification Factor	7.2	7.2	7.2	7.2
Maximum Signal Power Output	550	450	880	760 milliwatts
Total Harmonic Distortion	4.6	1.6	2.8	1.4 per cent

*If the filament is operated on D.C., the characteristics will be approximately the same if the grid voltage, measured from the negative filament, is decreased by 2.3 volts.







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A development of Bell Telephone Laboratories, the research laboratories of the American Telephone and Telegraph Company and the Western Electric Company.