

**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

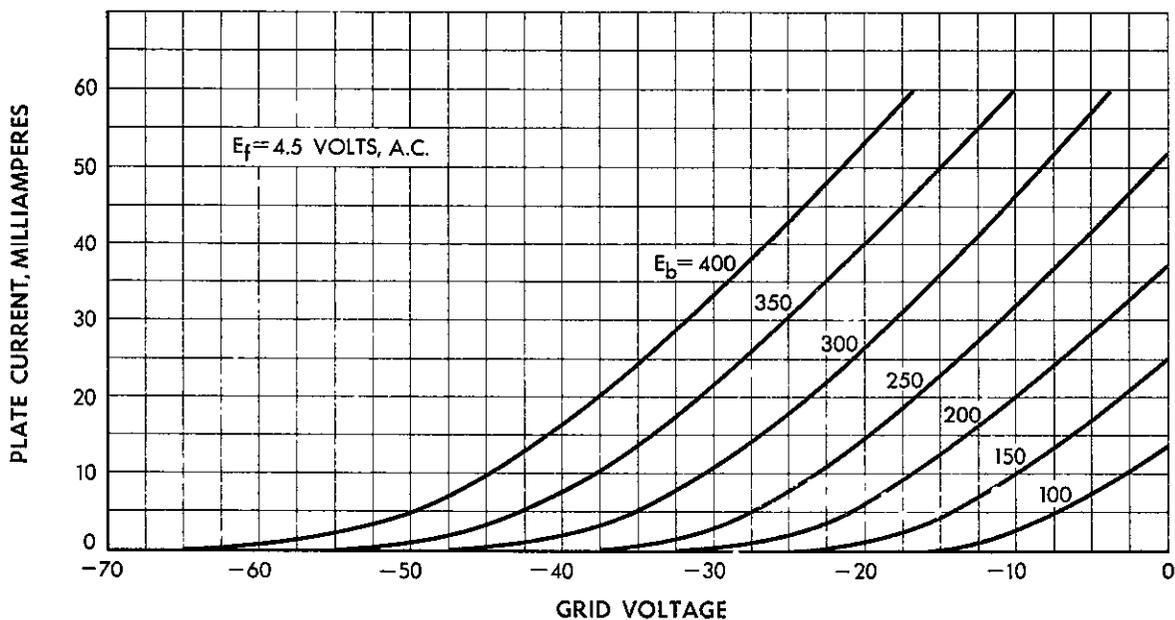
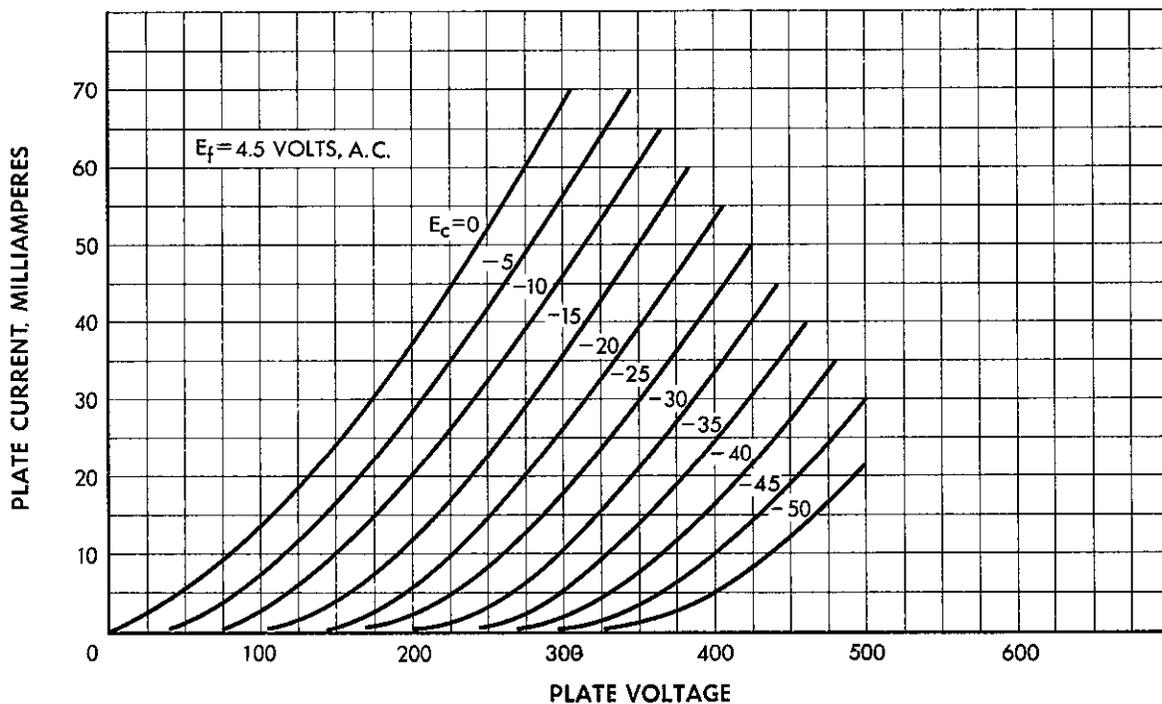
**MAXIMUM RATINGS, Design-Center Values**

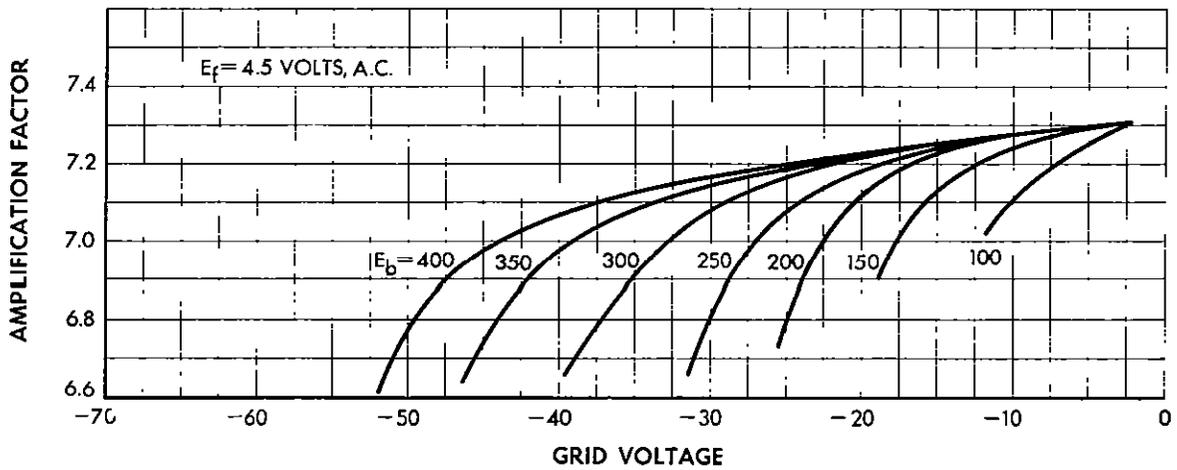
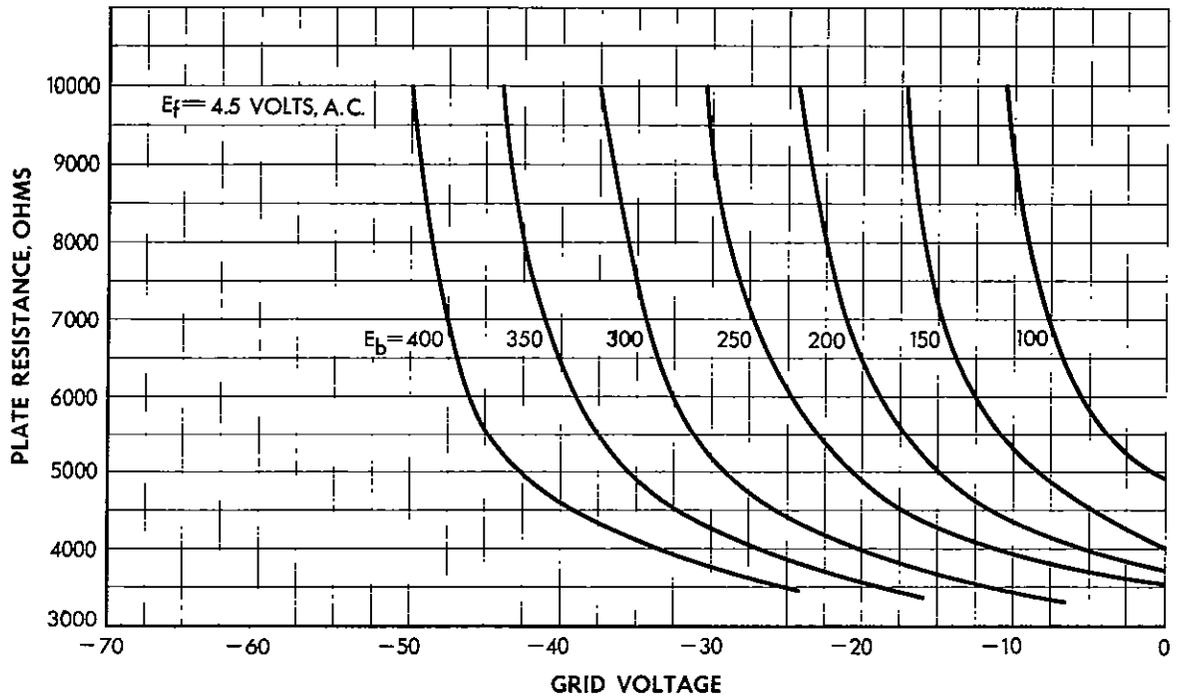
Plate Voltage . . . . .	360 volts
Plate Current . . . . .	50 milliamperes
Plate Dissipation . . . . .	12.5 watts

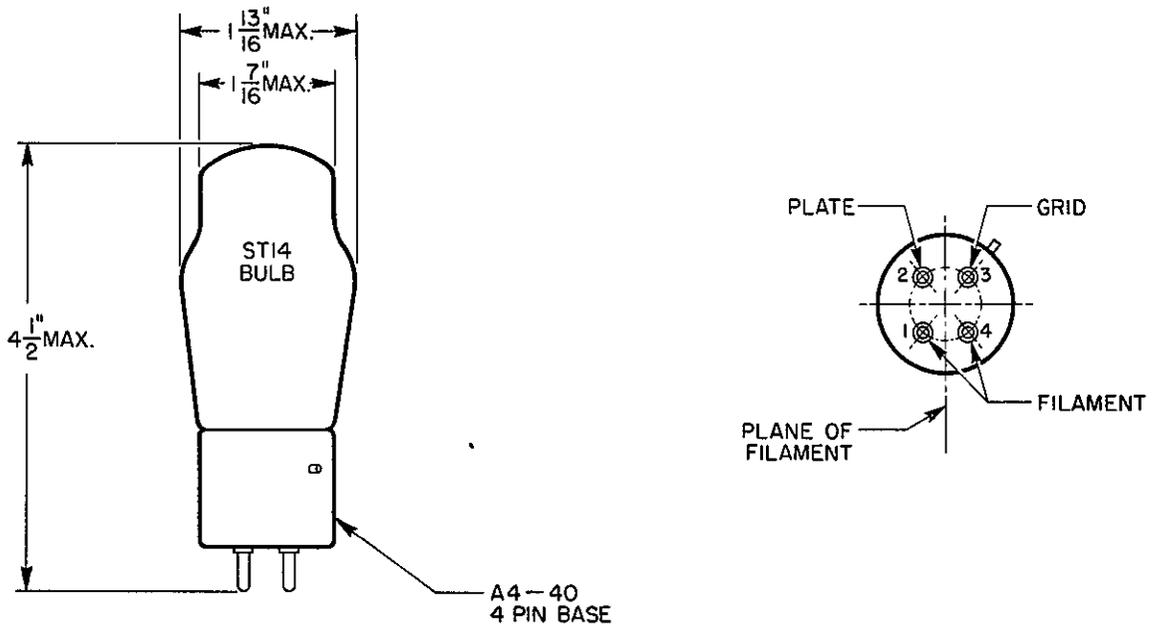
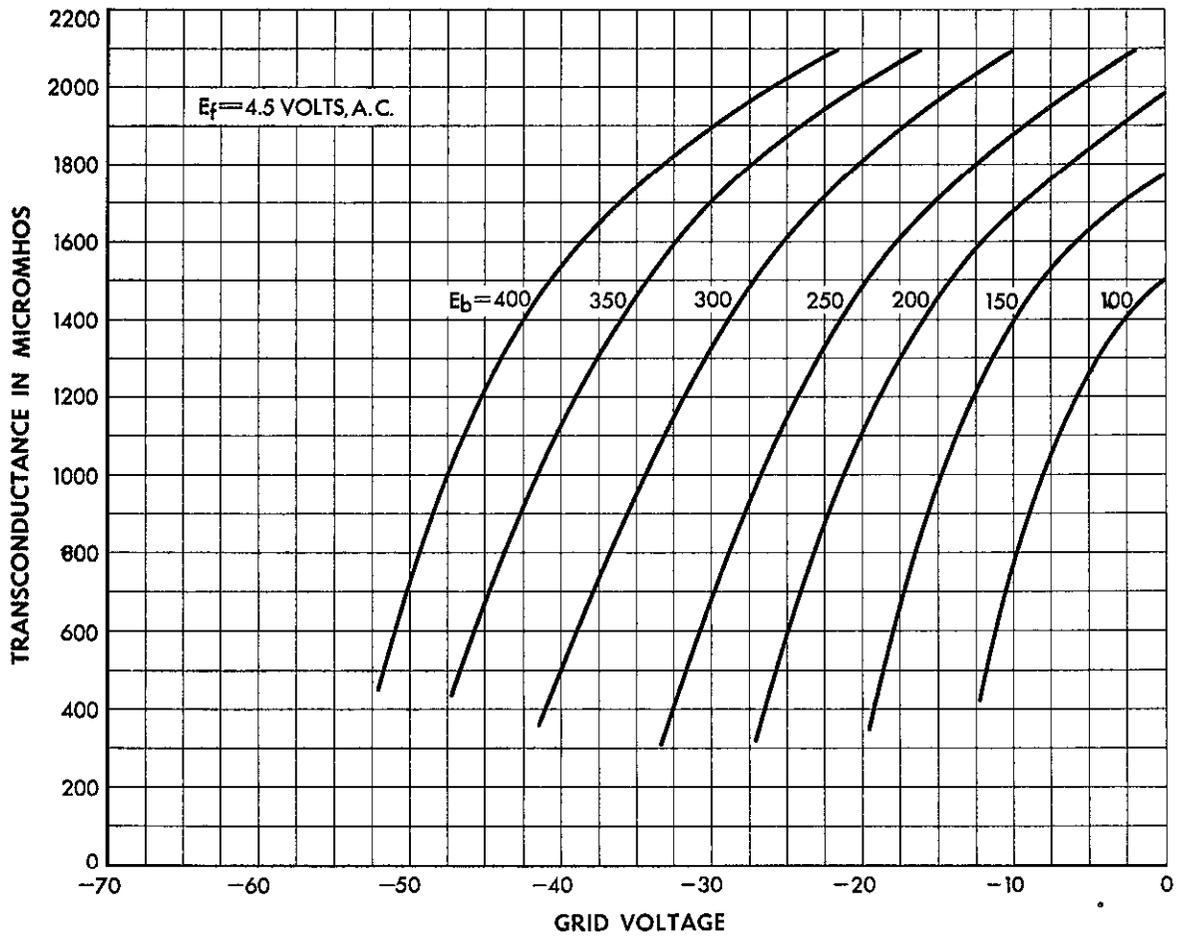
**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

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.







*Western Electric*

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