

**TRIODE
LOW POWER AMPLIFIER**

Western Electric

DESCRIPTION

The 272A is a triode having an indirectly heated cathode. It is designed for use as a radio-frequency antenna-coupling amplifier, low-power audio-frequency amplifier, detector or modulator.

CHARACTERISTICS

Heater Voltage	10.0 volts
Maximum Plate Voltage	180 volts
Amplification Factor	.60

GENERAL CHARACTERISTICS**ELECTRICAL DATA**

Heater Voltage, A-C or D-C	10.0 volts
Heater Current	320 milliamperes
Direct Interelectrode Capacitances (without external shield)	
Grid to Plate	2.8 uuf
Input	3.1 uuf
Output	2.5 uuf

MECHANICAL DATA

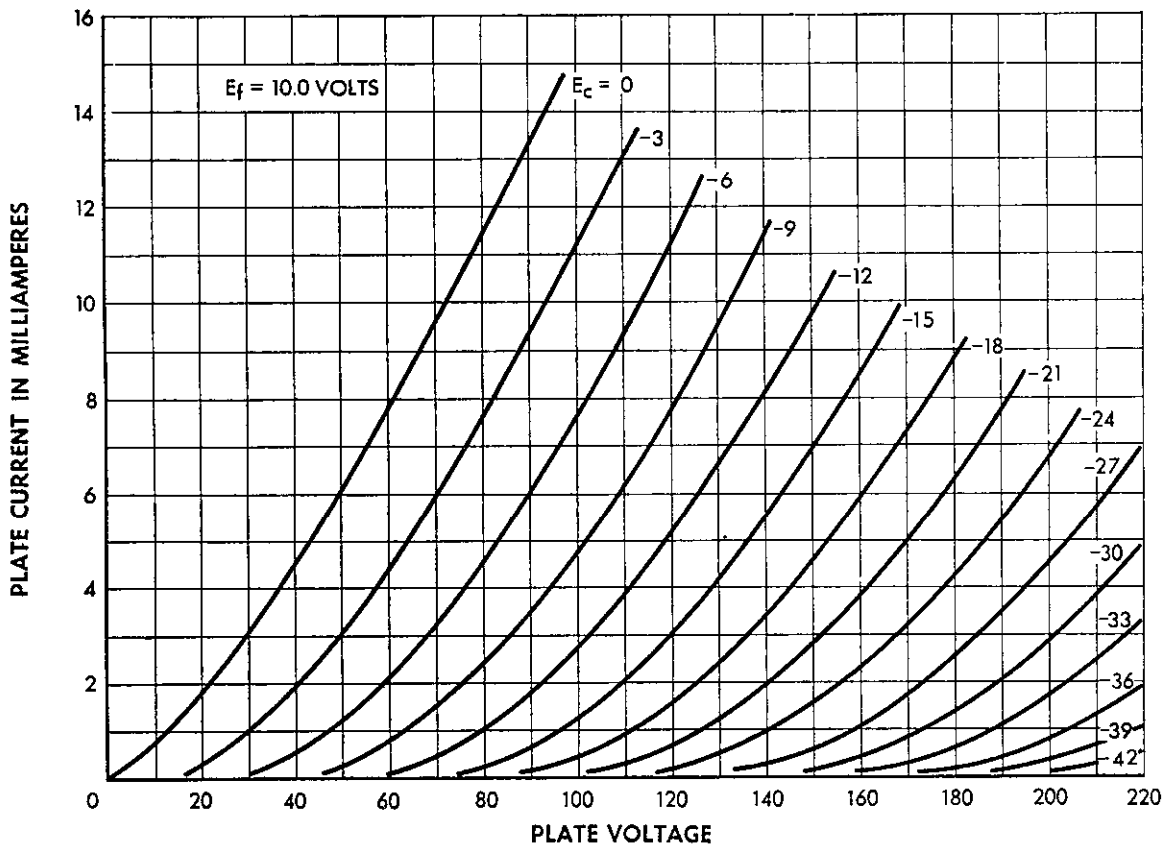
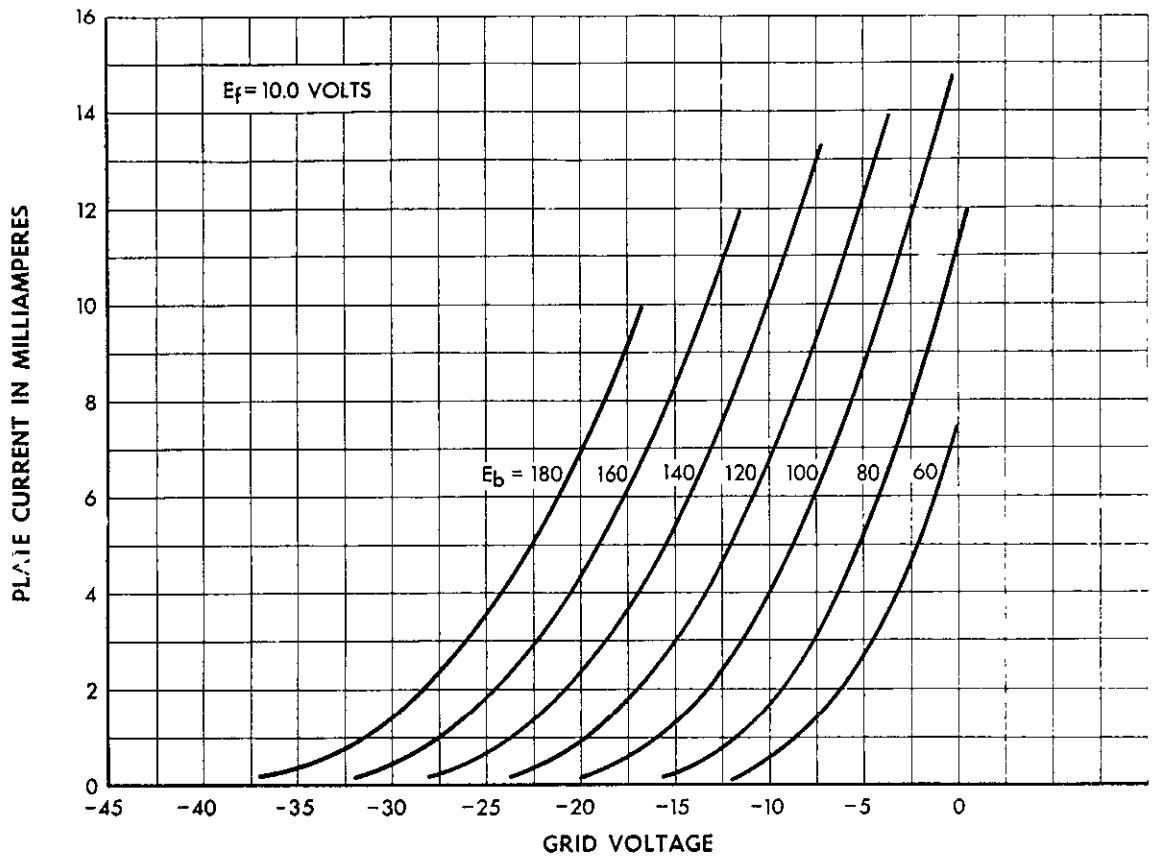
Cathode	Coated unipotential
Bulb	ST14
Base	Medium 5-pin, with bayonet pin
Mounting Position	Any
Dimensions and pin connections shown in outline drawing on Page 5	

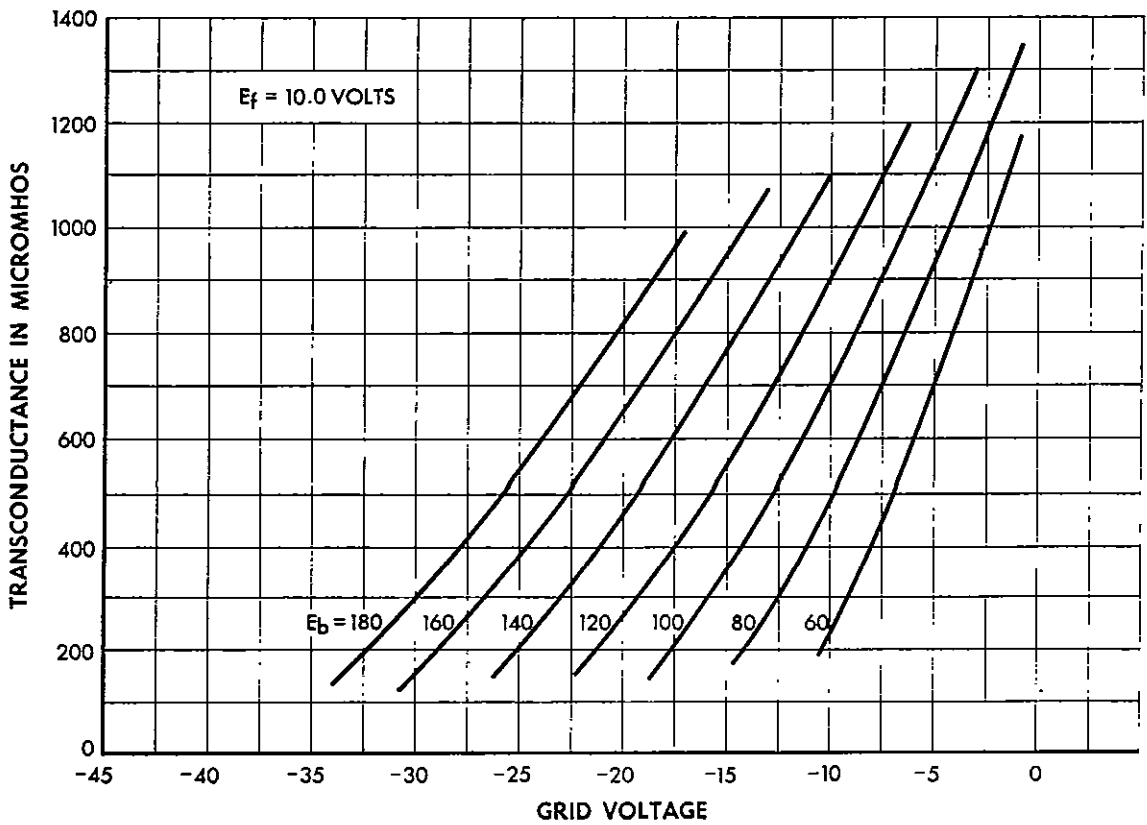
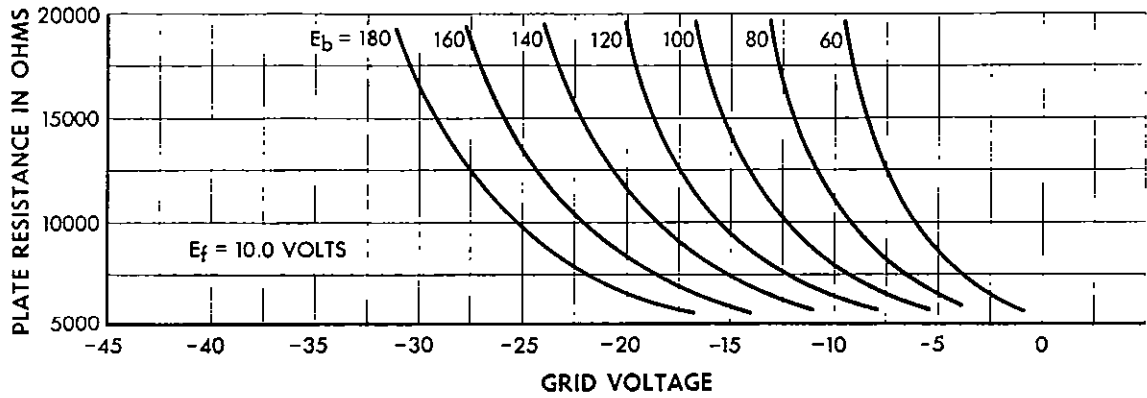
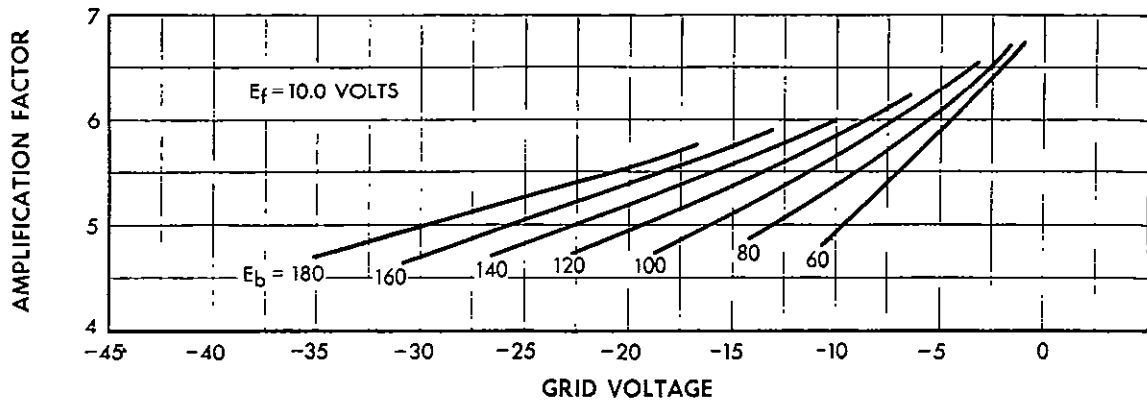
MAXIMUM RATINGS, Design-Center Values

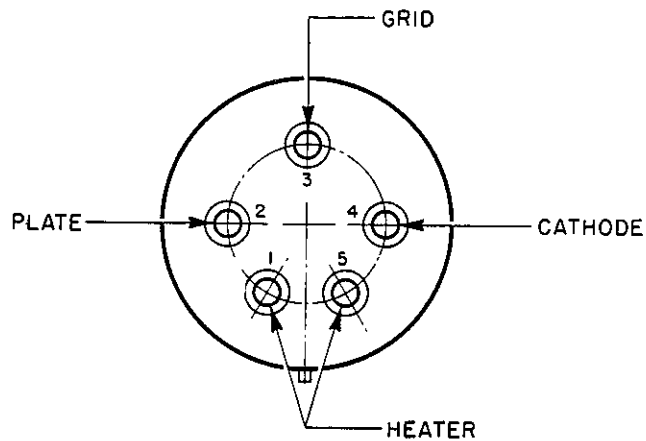
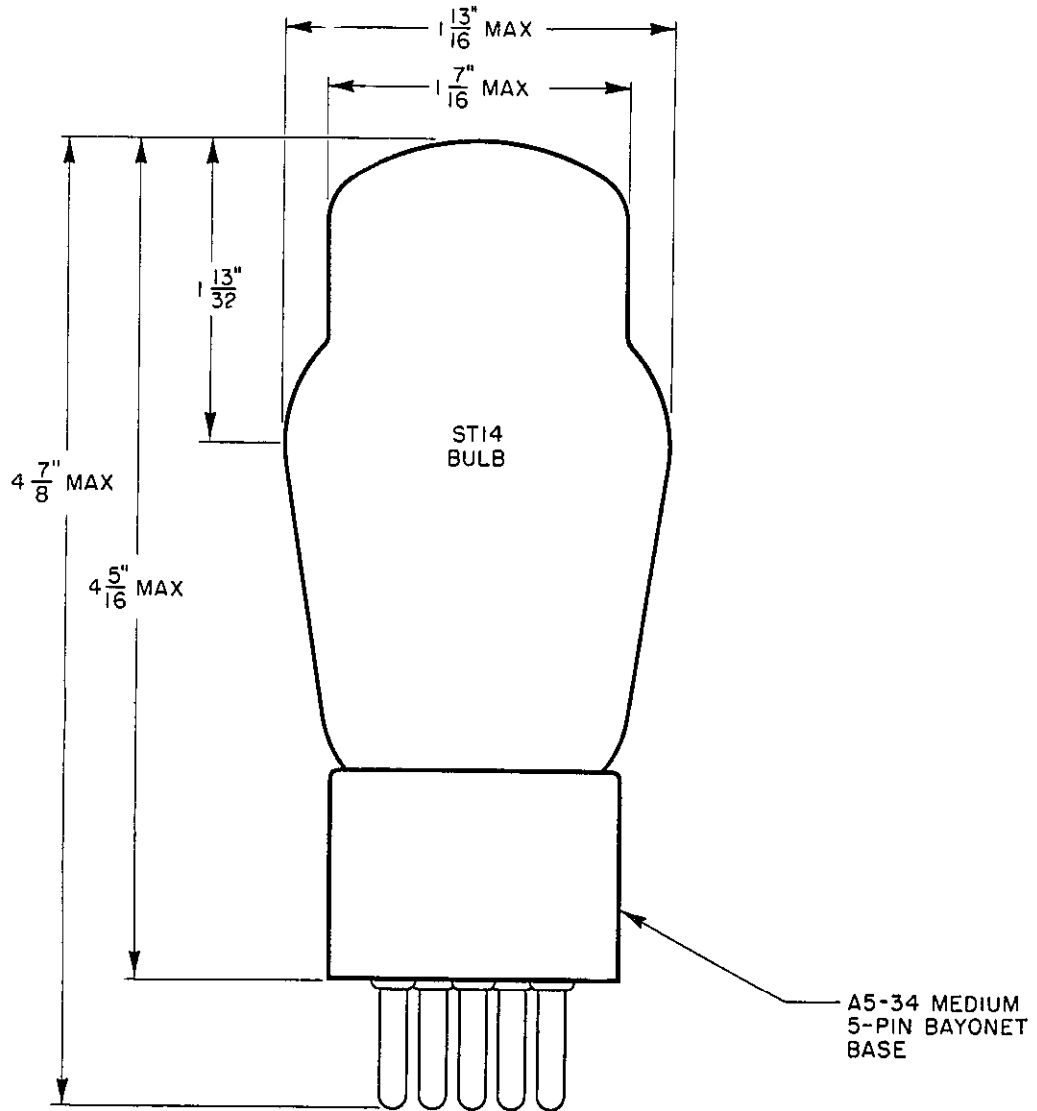
Plate Voltage	180 volts
Plate Dissipation	2.0 watts
Plate Current	12.0 milliamperes
Heater-Cathode Voltage	100 volts

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS — CLASS A₁ AMPLIFIER

Plate Voltage	100	120	160	180 volts
Grid Voltage	-7	-10	-17	-21 volts
Peak A-F Grid Voltage	7	10	17	21 volts
Plate Current	6.6	6.7	6.6	6.2 milliamperes
Transconductance	950	910	820	760 micromhos
Amplification Factor	6.0	5.8	5.6	5.5
Plate Resistance	6300	6400	6800	7200 ohms
Load Resistance	12600	12800	13600	14400 ohms
Maximum Signal Power Output	30	60	150	210 milliwatts
Total Harmonic Distortion	4.0	5.0	6.3	8.0 per cent







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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.