

**TRIODE  
POWER AMPLIFIER**

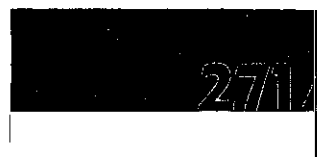
*Western Electric*

**DESCRIPTION**

The 271A is a power amplifier triode having an indirectly heated cathode. It is designed for use in amplifier, modulator, or oscillator circuits for both audio and radio frequencies.

**CHARACTERISTICS**

Heater Voltage	5.0 volts
Maximum Plate Voltage	450 volts
Power Output	3.0 watts



**GENERAL CHARACTERISTICS****ELECTRICAL DATA**

Heater Voltage, A-C or D-C	5.0 volts
Heater Current	2.0 amperes
Direct Interelectrode Capacitances (without external shield)	
Grid to Plate	4.2 uuf
Input	6.7 uuf
Output	3.1 uuf

**MECHANICAL DATA**

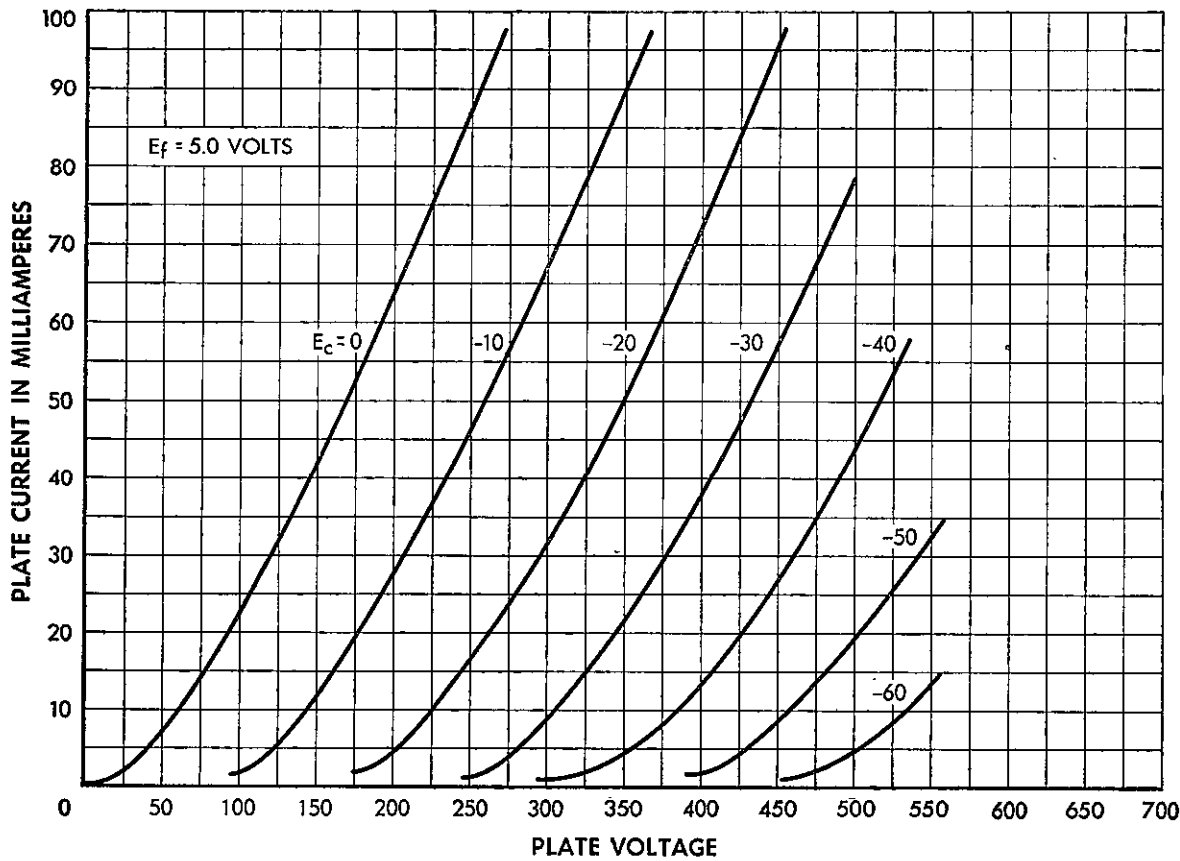
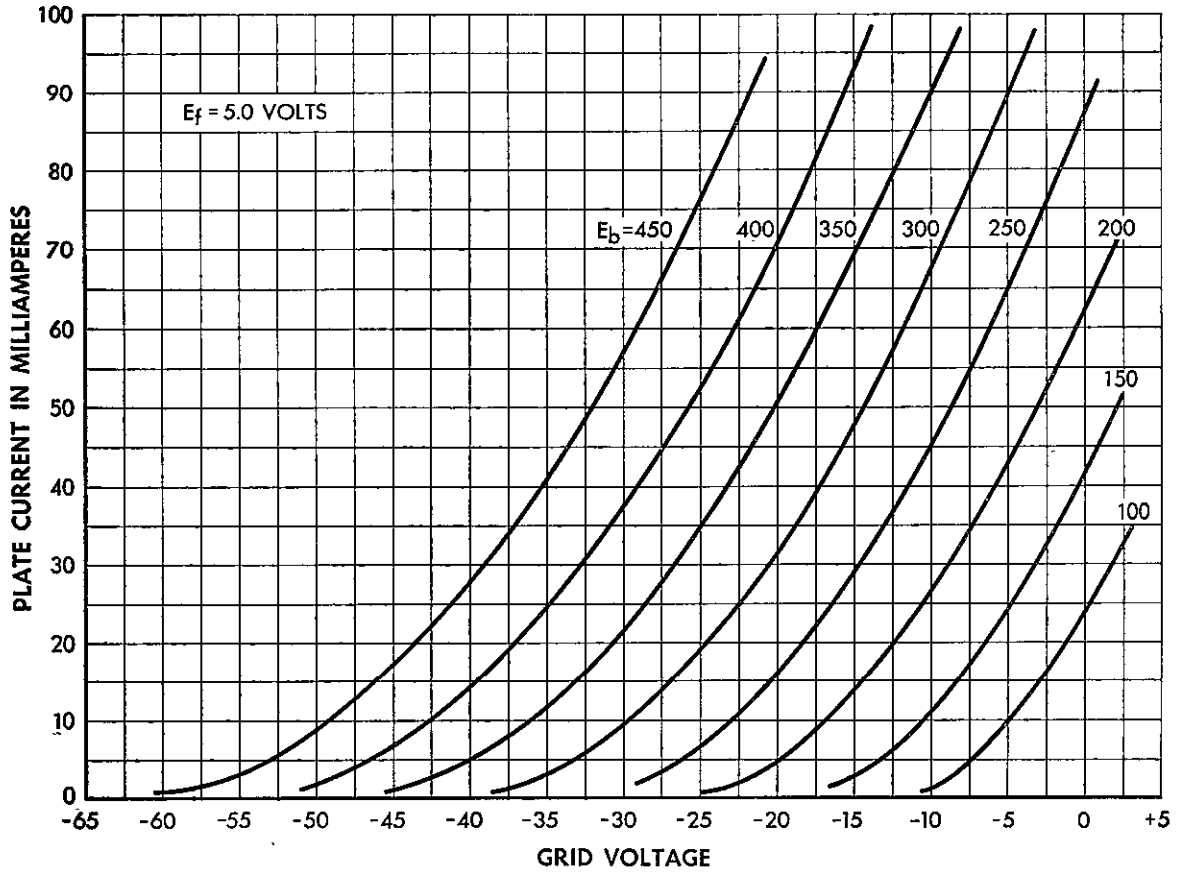
Cathode	Coated Unipotential
Bulb	S19
Base	Medium 5-pin
Mounting Position	Any
Dimensions and pin connections shown in outline drawing on Page 5	

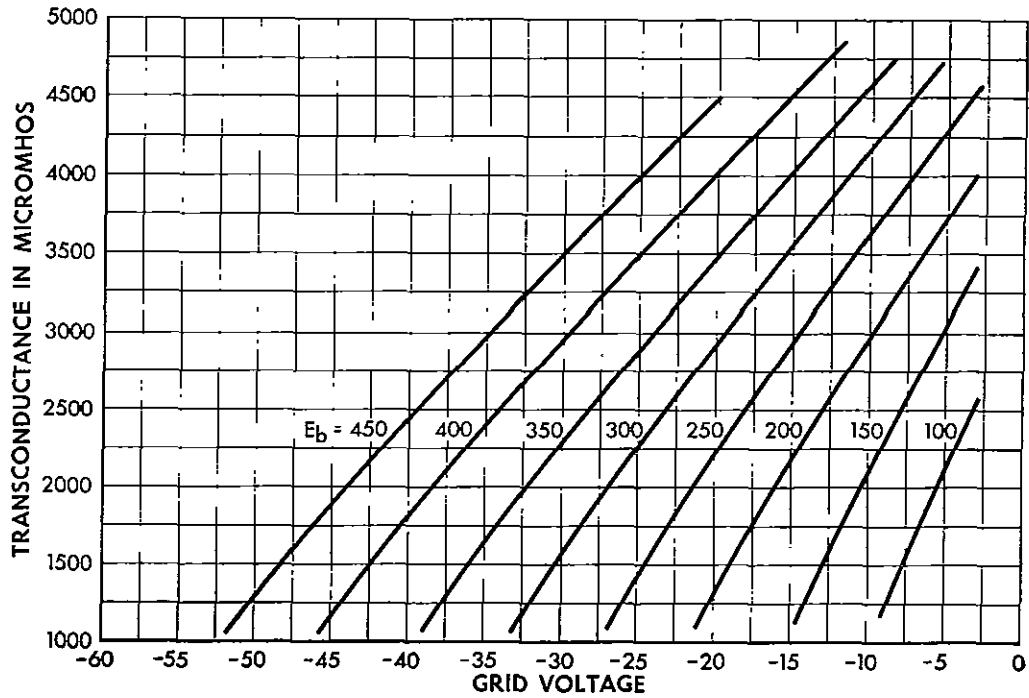
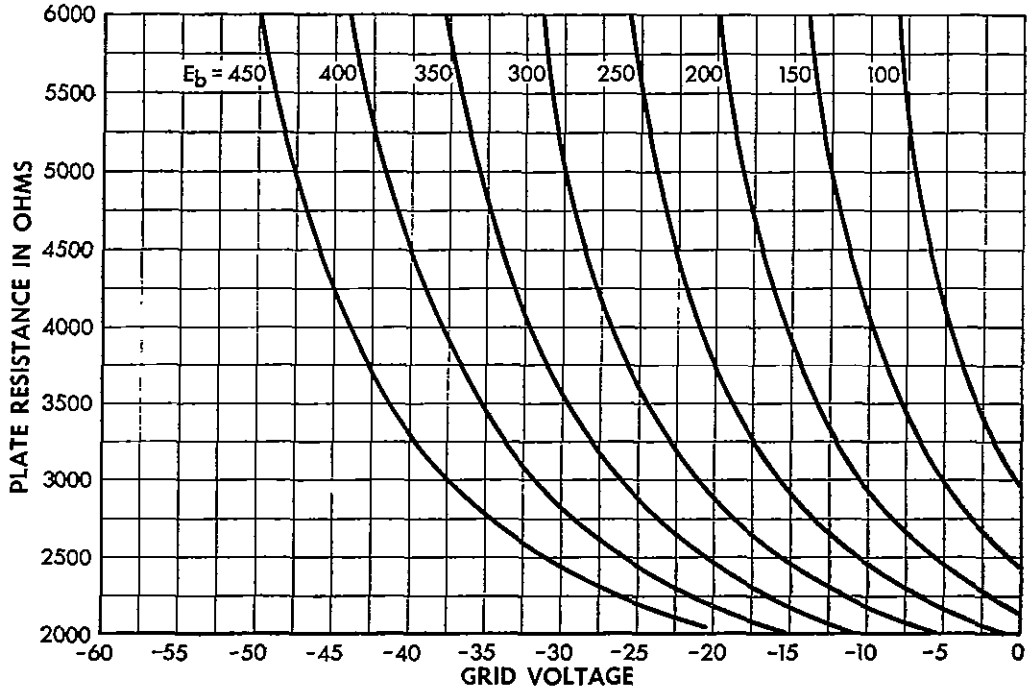
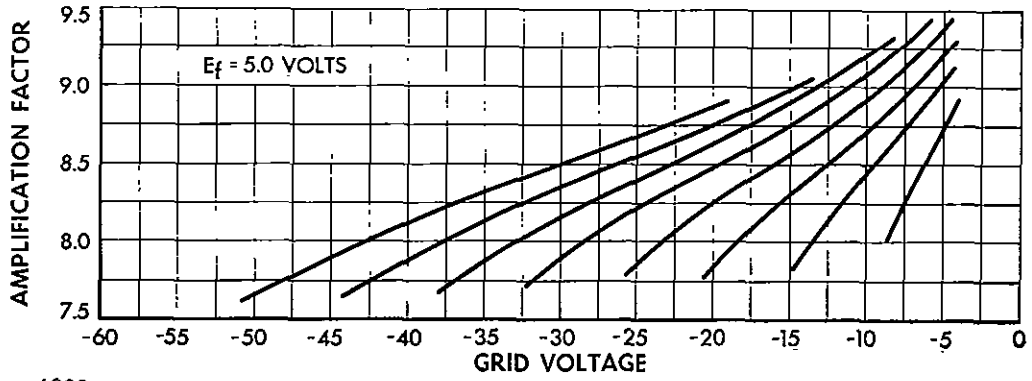
**MAXIMUM RATINGS, Design-Center Values**

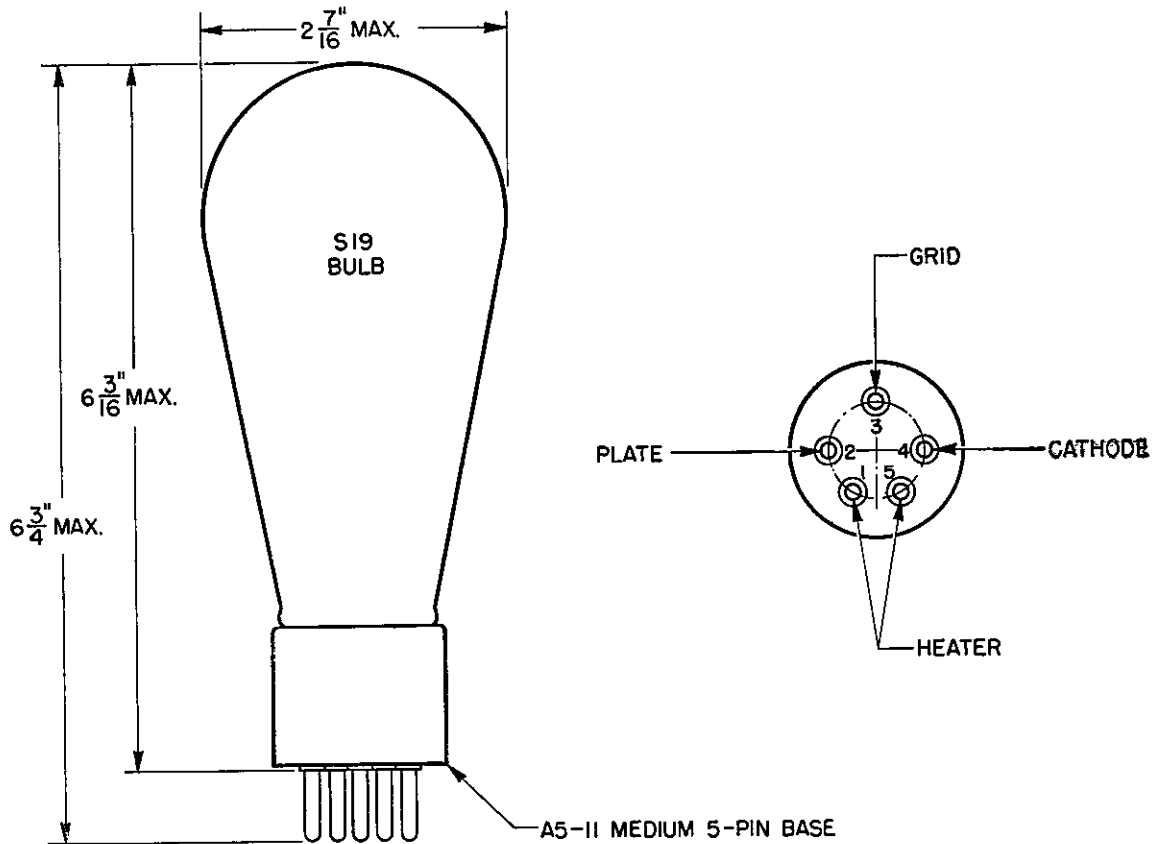
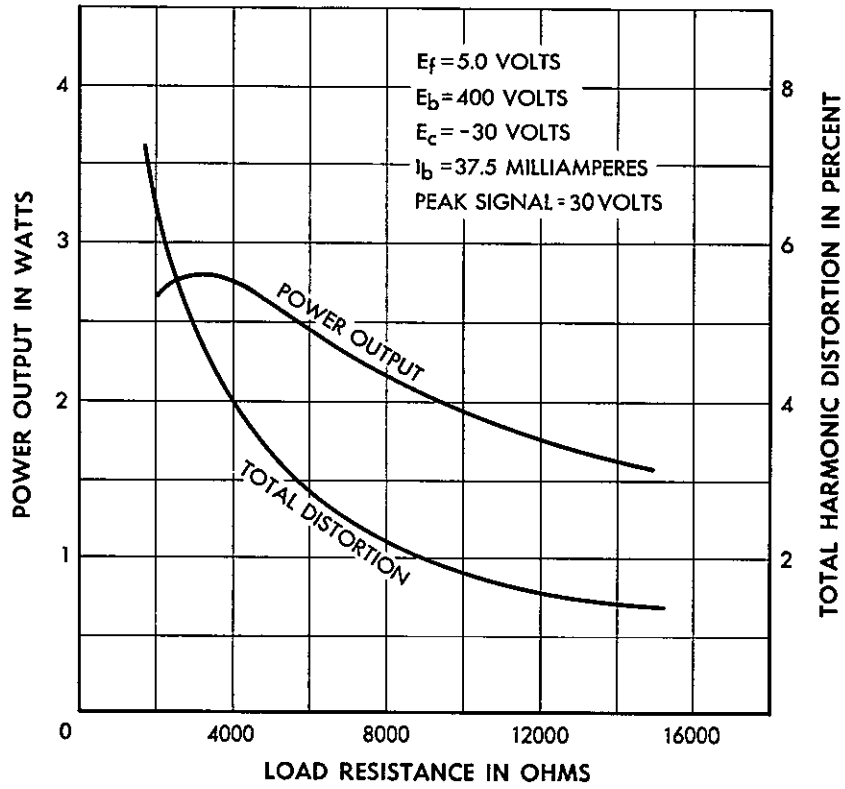
Plate Voltage	450 volts
Plate Dissipation	27 watts
Plate Current	60 milliamperes
Heater-Cathode Voltage	100 volts

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS – CLASS A<sub>1</sub> AMPLIFIER**

Plate Voltage	300	350	400	450 volts
Grid Voltage	-25	-25	-30	-30 volts
Peak A-F Grid Voltage	25	25	30	30 volts
Plate Current	19.5	34.5	37.5	57.5 milliamperes
Transconductance	2250	2930	2920	3480 micromhos
Amplification Factor	8.2	8.4	8.3	8.5
Plate Resistance	3650	2850	2830	2450 ohms
Load Resistance	14600	5700	6000	4900 ohms
Maximum Signal Power Output	0.9	1.7	2.4	3.1 watts
Total Harmonic Distortion	4.5	6	6	3.1 per cent







*Western Electric*

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