



TETRODE

Western Electric

DESCRIPTION

The 259A is a tetrode having an indirectly heated cathode. It is designed for use as a radio-frequency voltage amplifier. It may also be used as a detector or audio-frequency voltage amplifier.

CHARACTERISTICS

Heater Voltage	2.0 volts
Plate Current	} $E_b = 180$ volts; $E_{c2} = 75$ volts; {	6.0 milliamperes
Transconductance		} $E_{c1} = -1.5$ volts {



GENERAL CHARACTERISTICS**ELECTRICAL DATA**

Heater Voltage, A-C or D-C		2.0 volts
Heater Current		1.60 amperes
Direct Interelectrode Capacitances		
	without external shield	with external shield (RMA #312)
Grid to Plate (maximum)	0.017	*0.007 uuf
Input	6.0	*7.3 uuf
Output	12.5	*13.0 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 7	

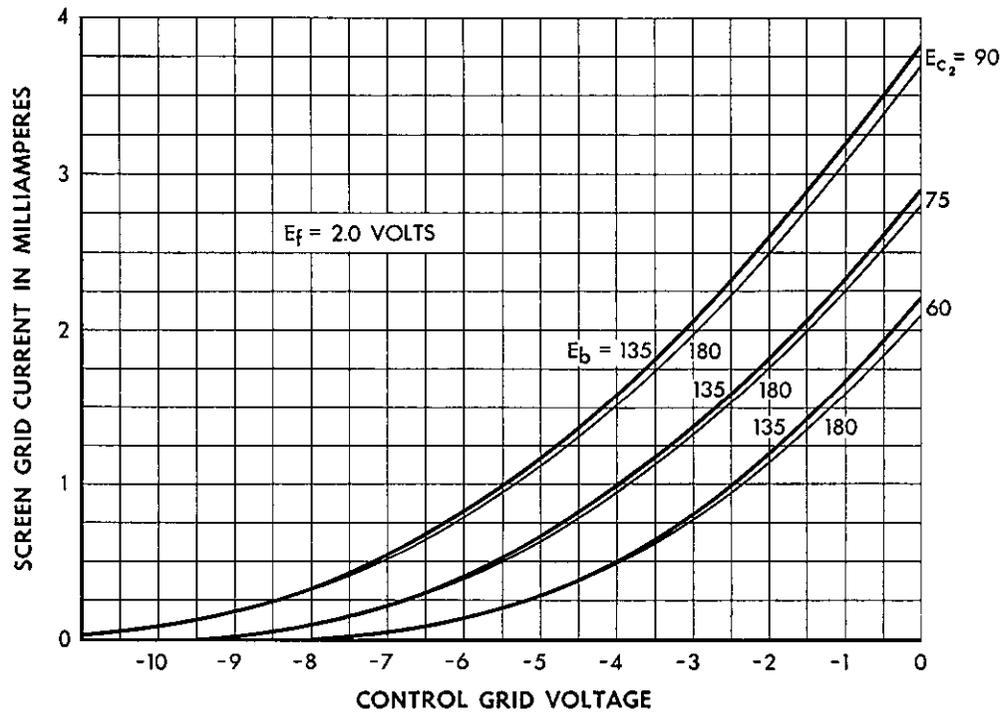
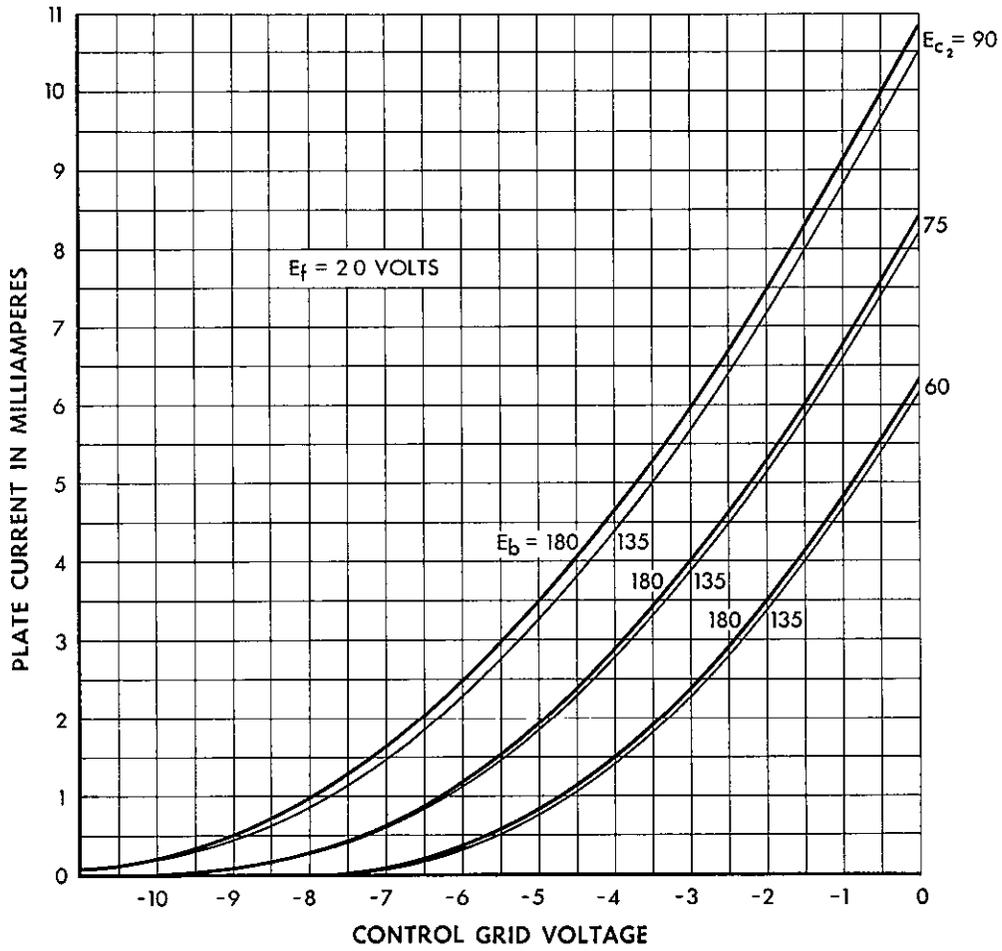
MAXIMUM RATINGS, Design-Center Values

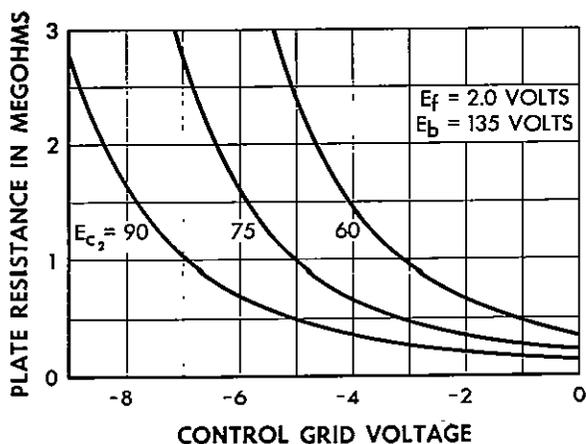
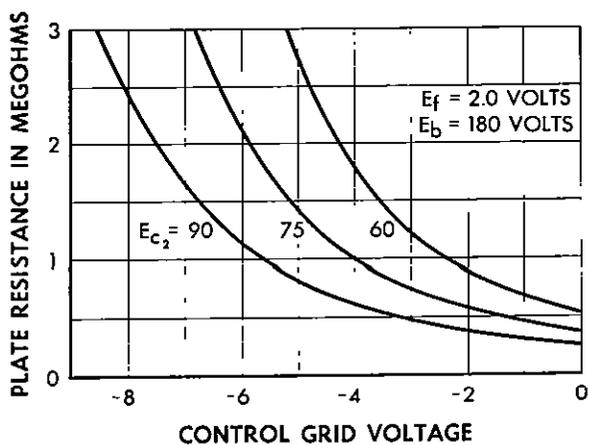
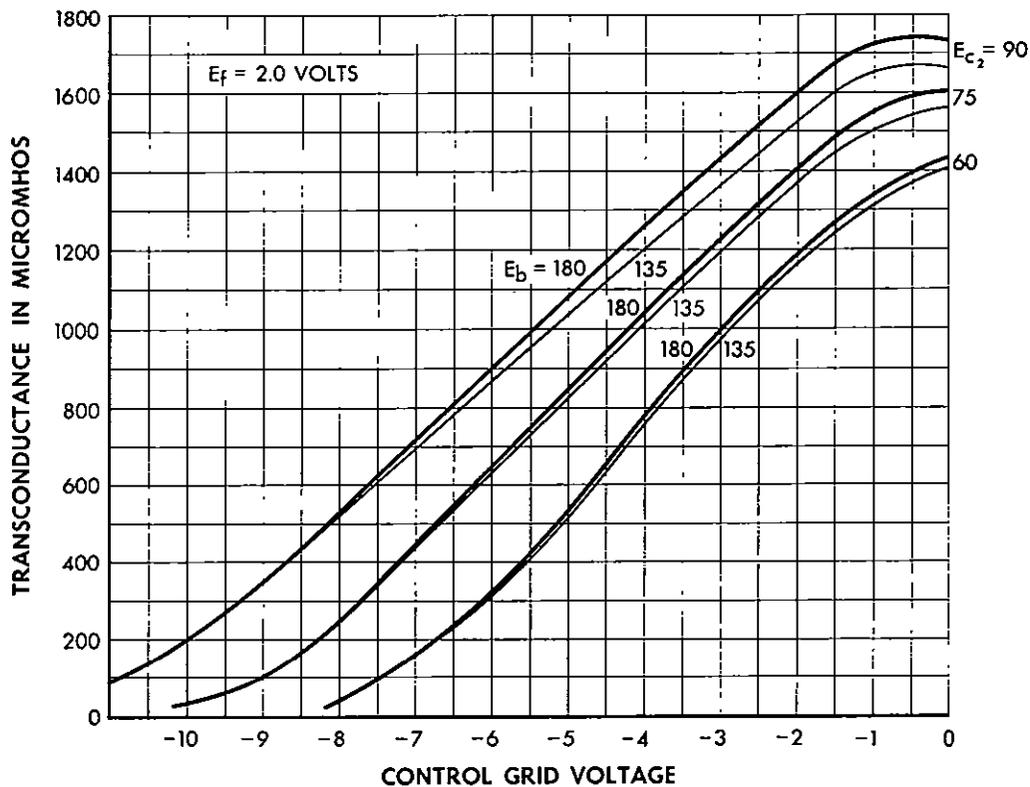
Plate Voltage	250 volts
Screen Grid Voltage	90 volts
Plate Dissipation	2.0 watts
Screen Grid Dissipation	0.4 watt
Cathode Current	10 milliamperes
Heater-Cathode Voltage	100 volts

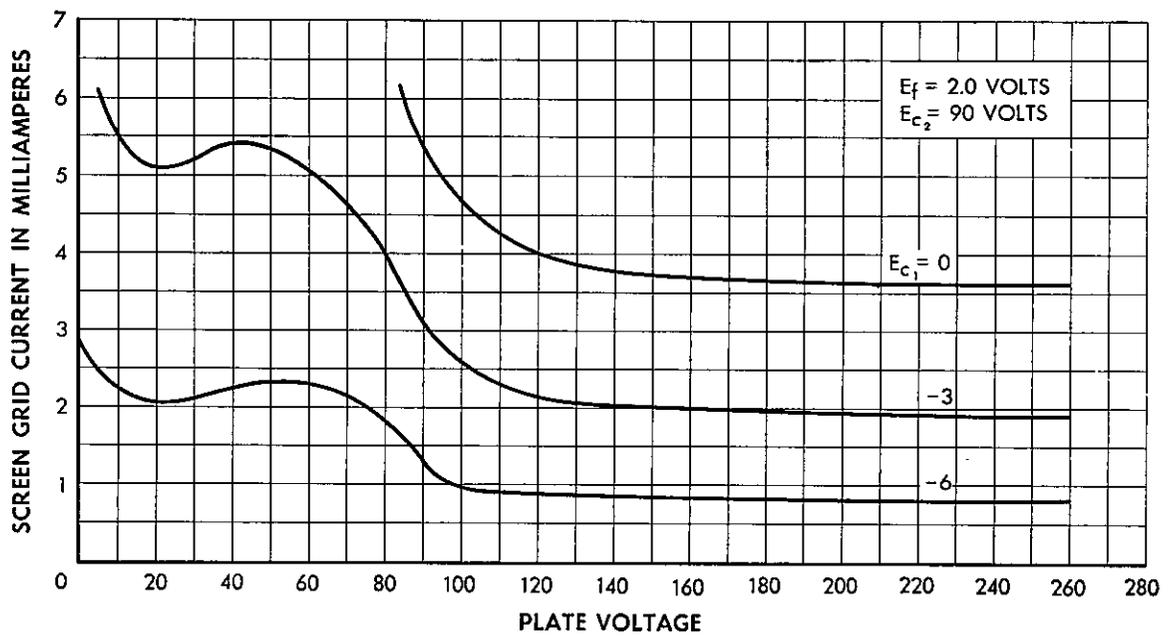
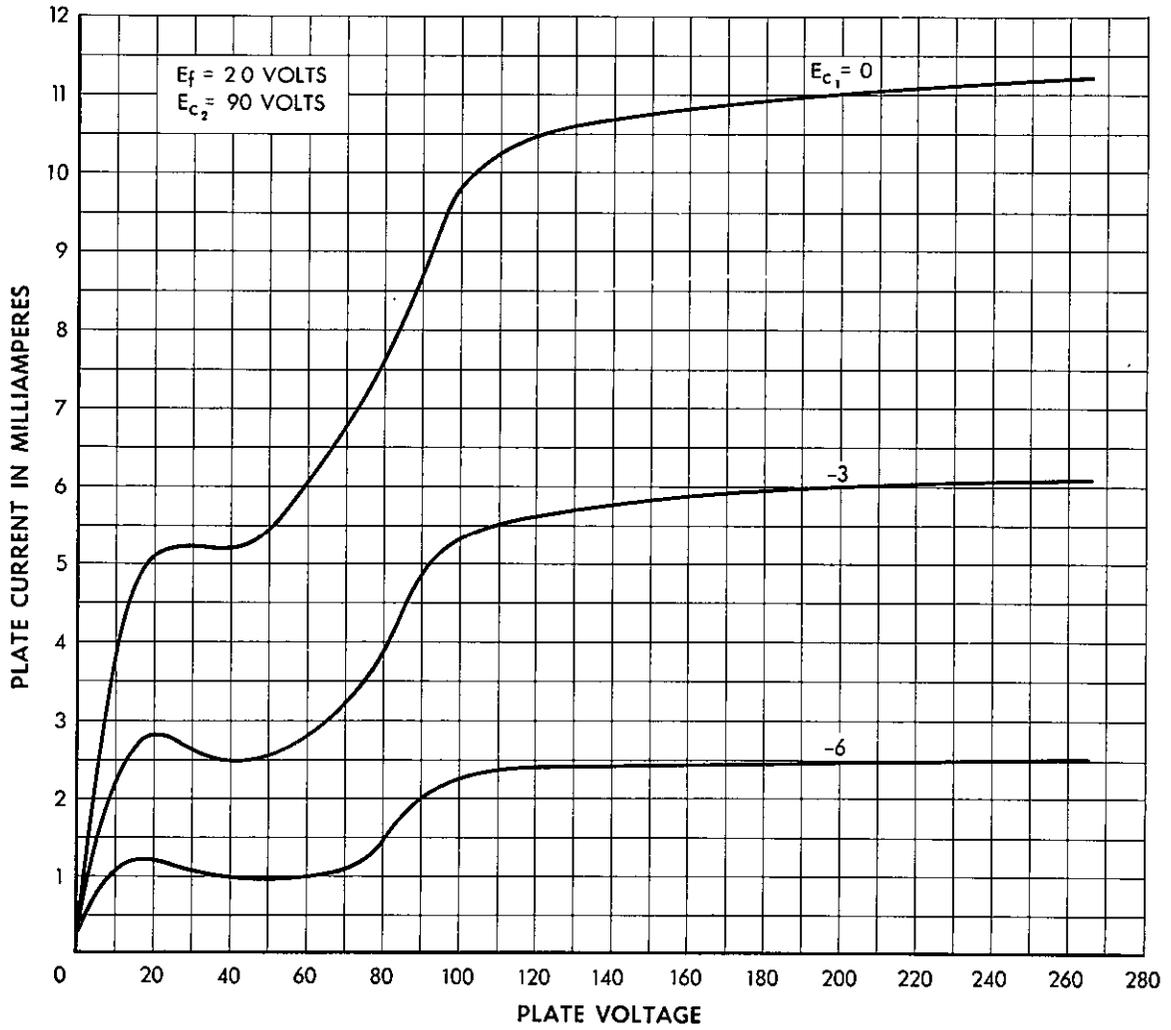
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

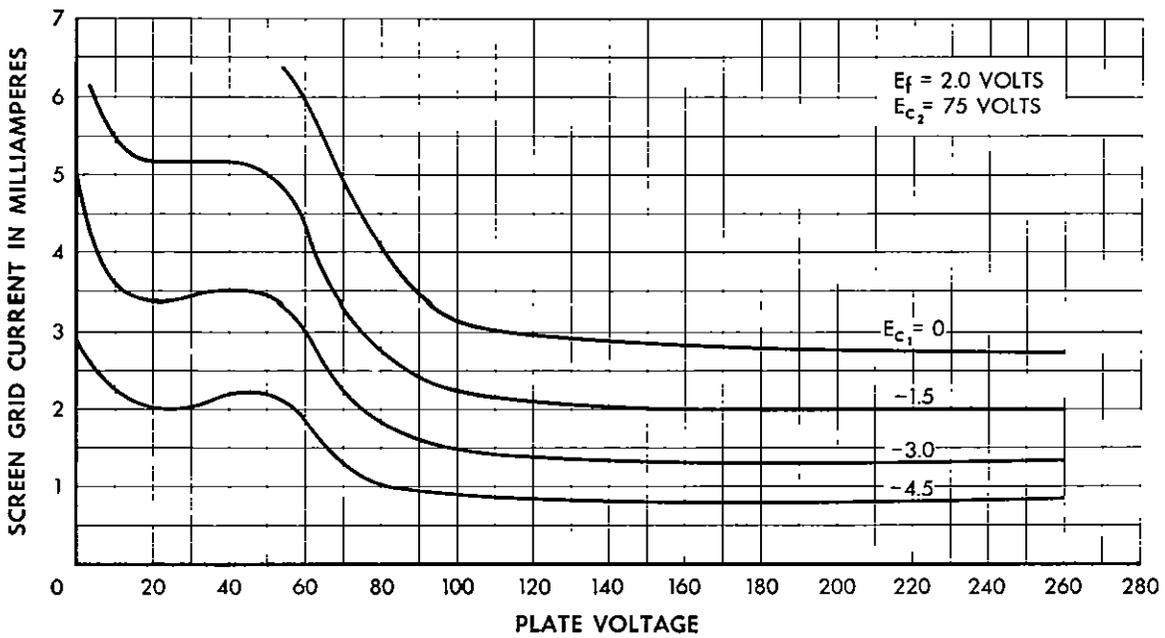
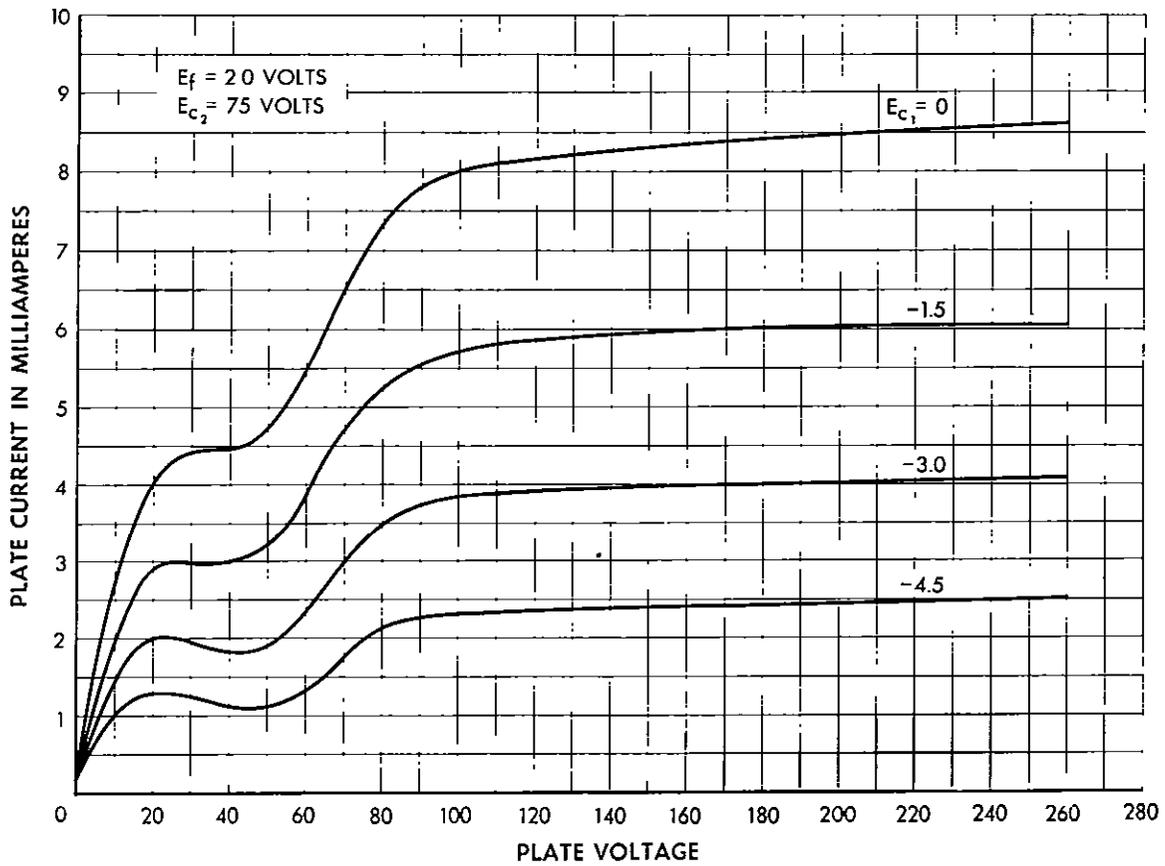
Plate Voltage	135	180	180 volts
Screen Grid Voltage	75	75	90 volts
Control Grid Voltage	-1.5	-1.5	-1.5 volts
Plate Current	5.8	6.0	8.3 milliamperes
Screen Grid Current	2.1	2.0	2.8 milliamperes
Plate Resistance	0.32	0.52	0.35 megohm
Transconductance	1440	1490	1670 micromhos
Control Grid Voltage, Approximate, for 10 Microamperes Plate Current	-9.5	-9.5	-12 volts

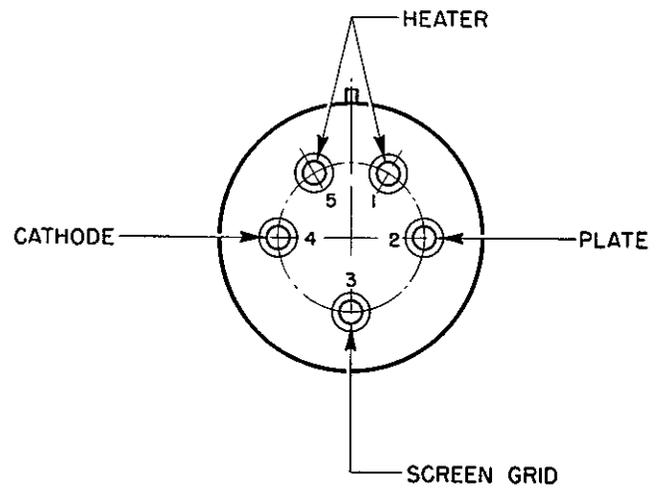
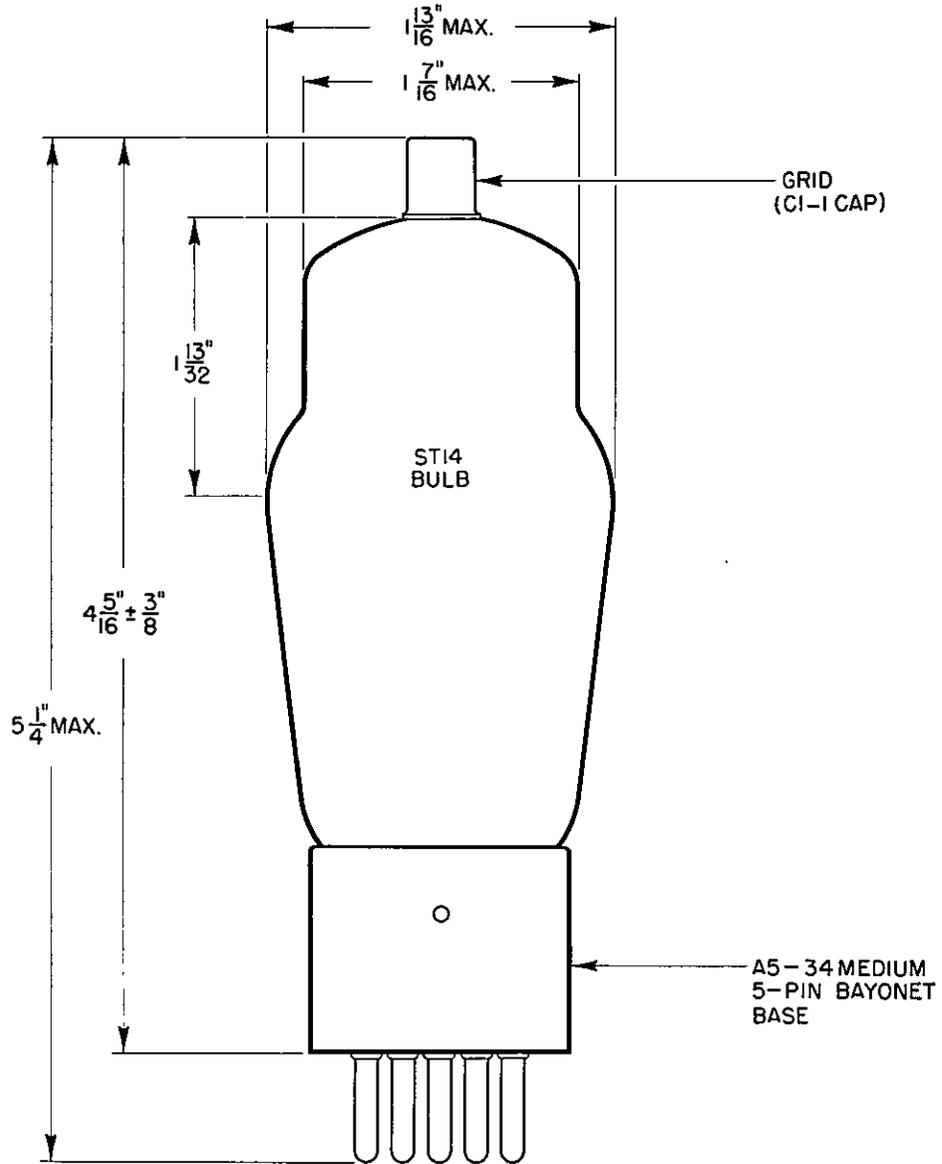
*With external shield (RMA #312) connected to cathode pin.











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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