



**PENTODE**

*Western Electric*

**DESCRIPTION**

The 375A is a beam power pentode of the heater cathode type. It is designed for use as an audio-frequency amplifier at plate voltages up to 130 volts. It is particularly suitable for use in communication installations where the available plate supply is only 48 volts.

**CHARACTERISTICS**

Heater Voltage . . . . .	$E_b = E_c = 45$ volts;	. . . . .	20 volts
Transconductance . . . . .	} $E_{c1} = -4$ volts	}	4800 micromhos
Power Output . . . . .			. . . . .

## GENERAL CHARACTERISTICS

## ELECTRICAL DATA

Heater Voltage, A-C or D-C . . . . .	20.0 volts
Heater Current . . . . .	320 milliamperes
Direct Interelectrode Capacitances (without external shield) . . . . .	
Grid to Plate . . . . .	1.0 uuf
Input . . . . .	13.5 uuf
Output . . . . .	8.5 uuf

## MECHANICAL DATA

Cathode . . . . .	Coated Unipotential
Bulb . . . . .	T11
Base . . . . .	Medium shell, 6-pin octal
Mounting Position . . . . .	Any

Dimensions and pin connections shown in outline drawing on Page 6

## MAXIMUM RATINGS, Design-Center Values

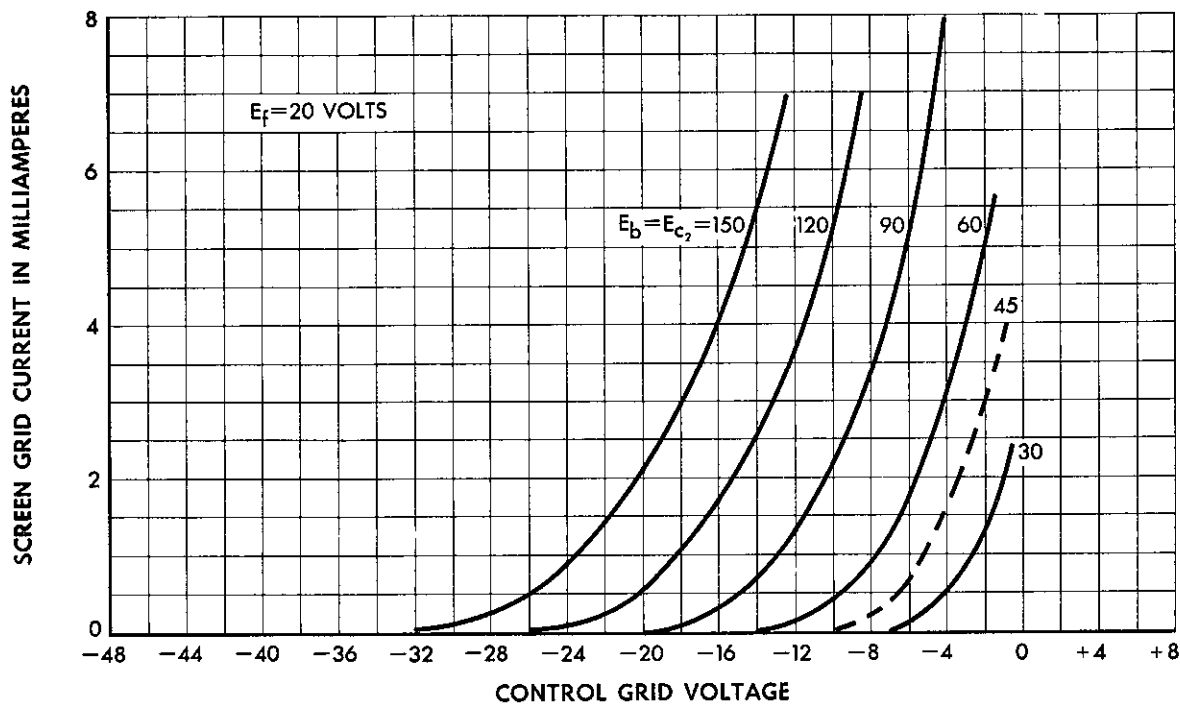
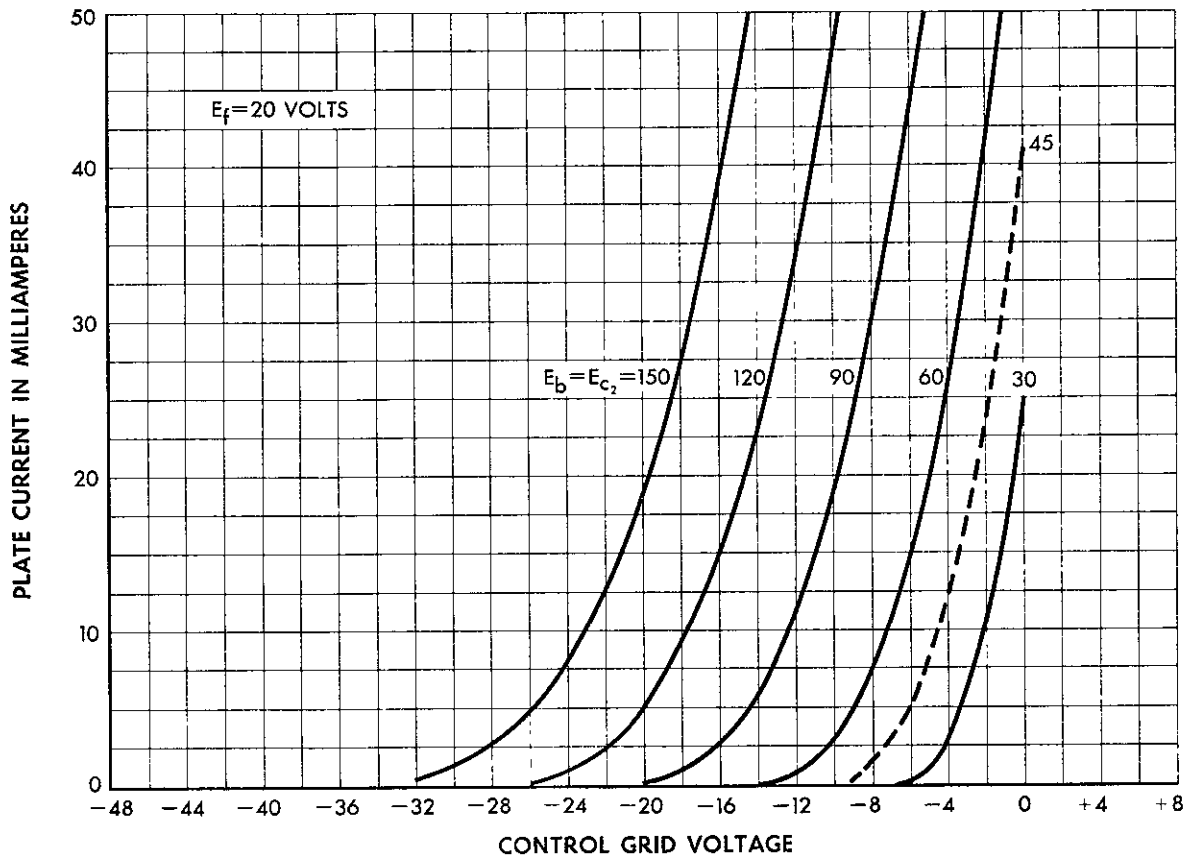
Plate Voltage . . . . .	130 volts
Screen Grid Voltage . . . . .	130 volts
Maximum Signal Plate Current . . . . .	50 milliamperes
Plate Dissipation . . . . .	6 watts
Screen Grid Dissipation . . . . .	1.3 watts

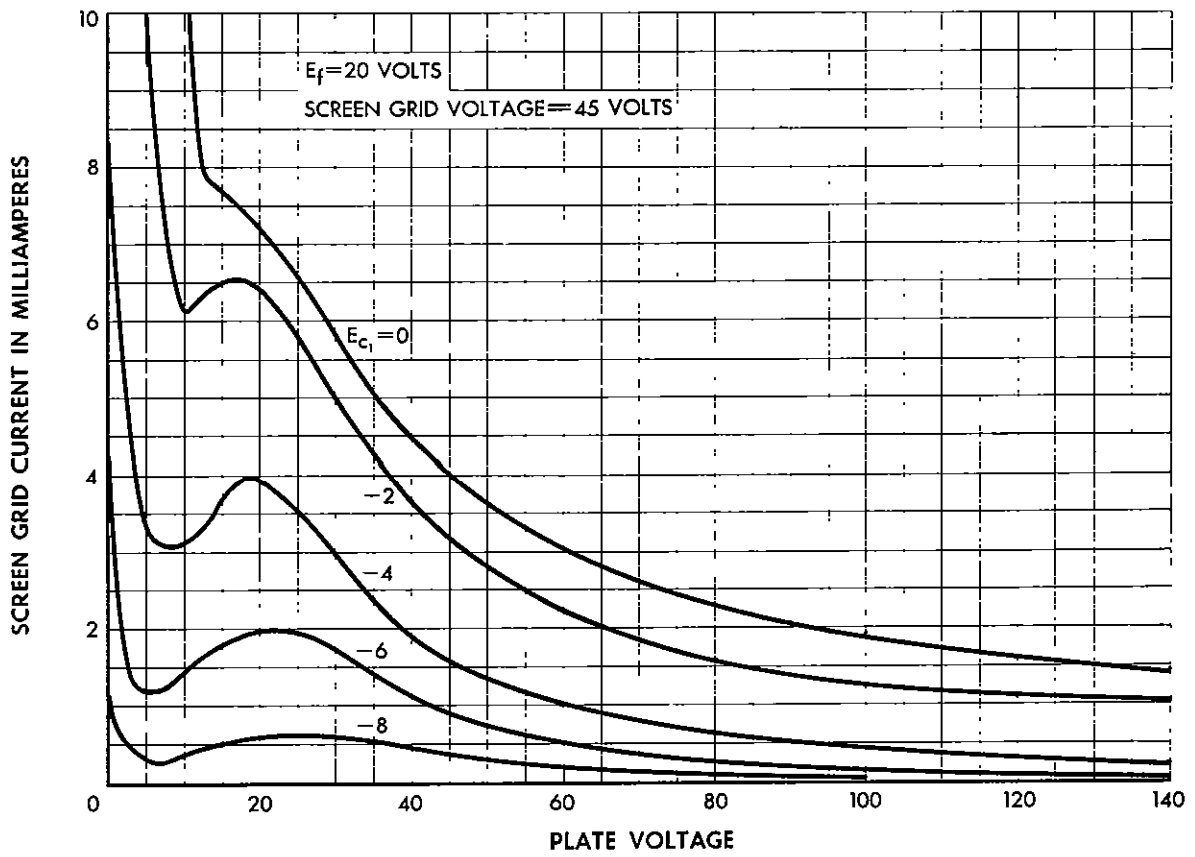
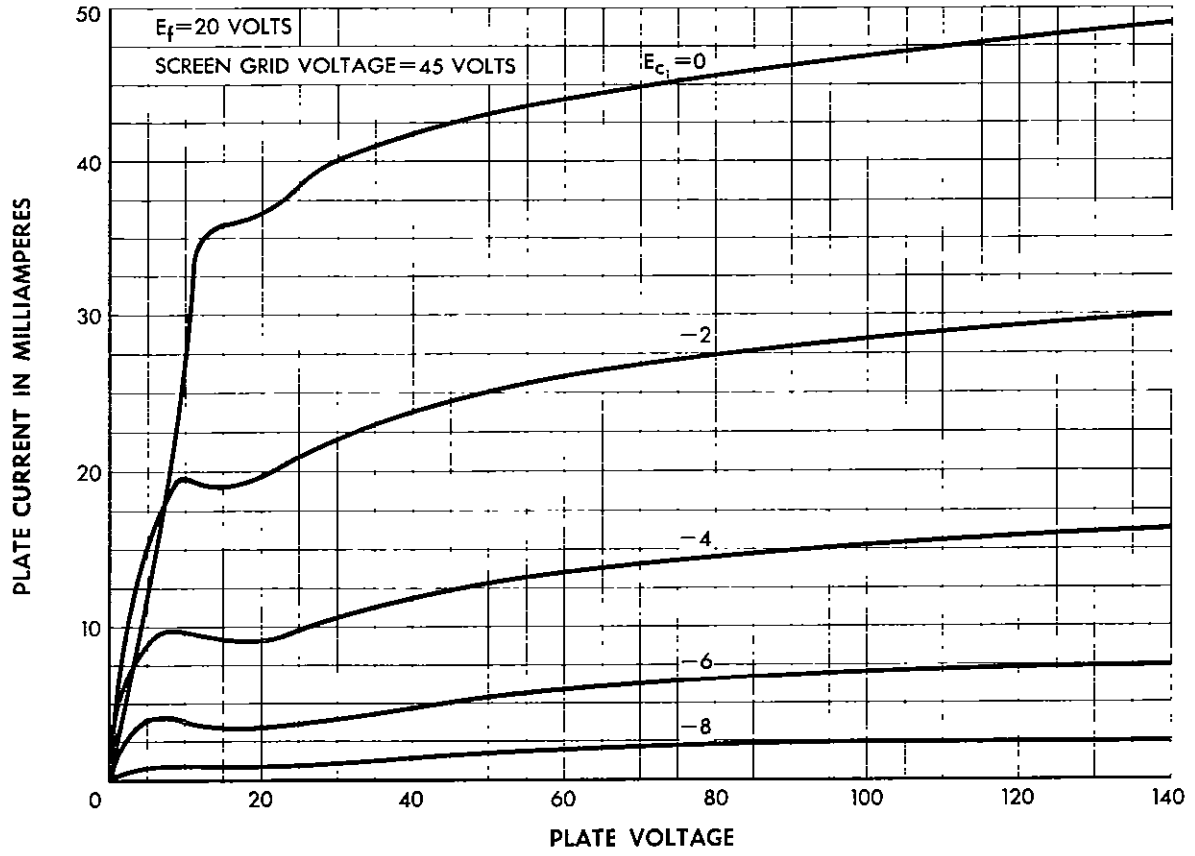
## Maximum Grid Circuit Resistance for

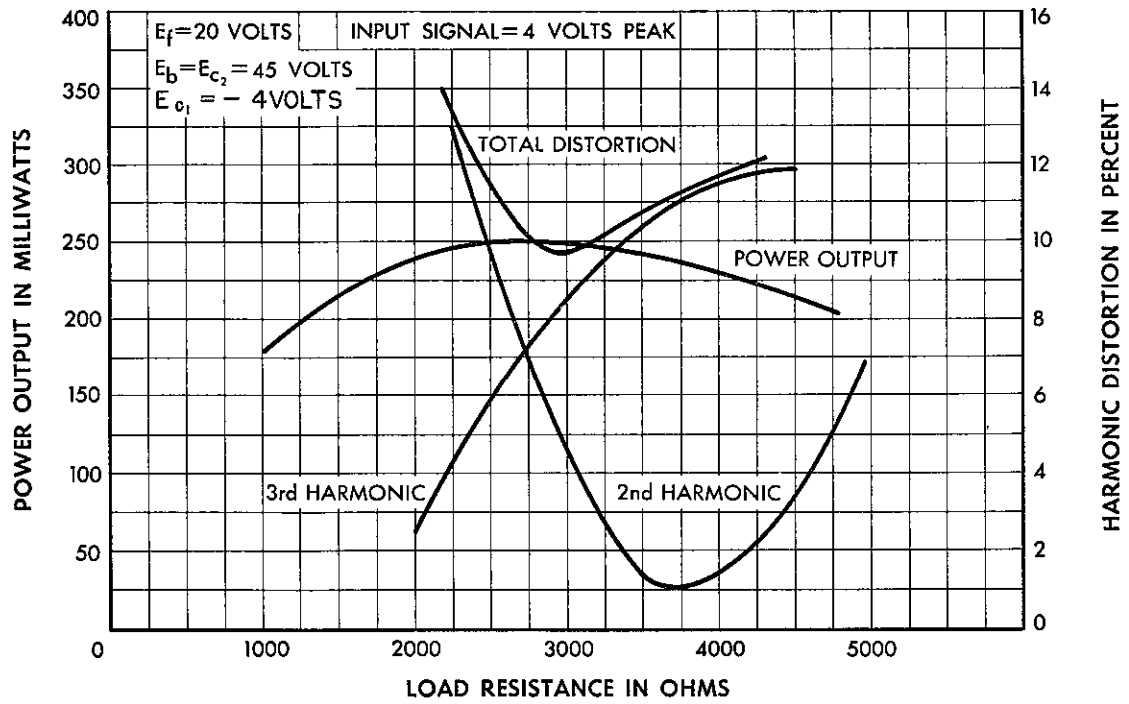
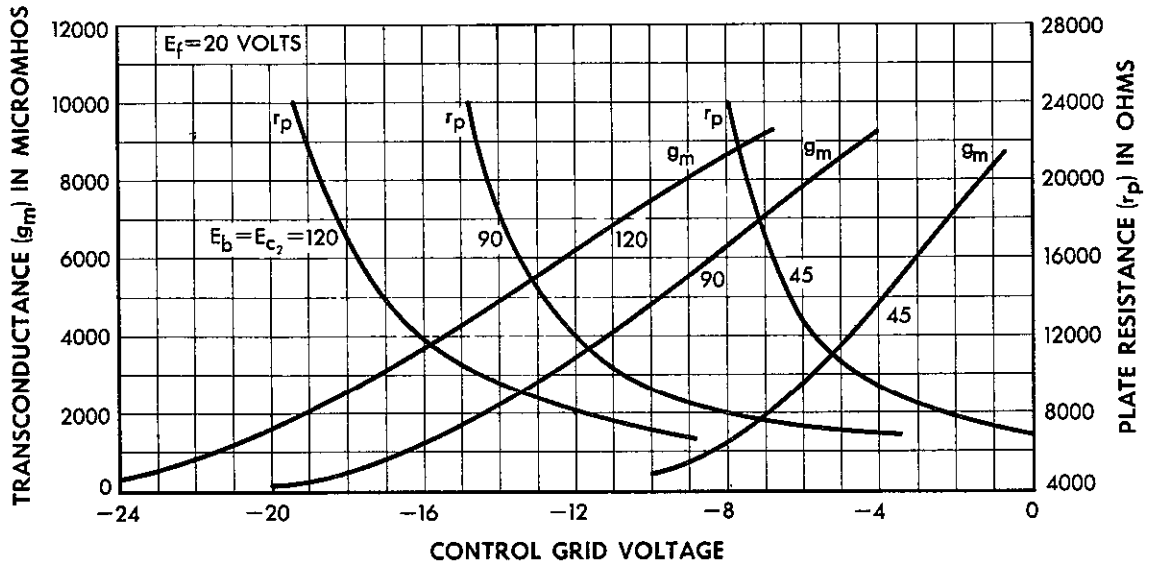
Fixed Bias . . . . .	0.1 megohm
Cathode Bias . . . . .	0.5 megohm

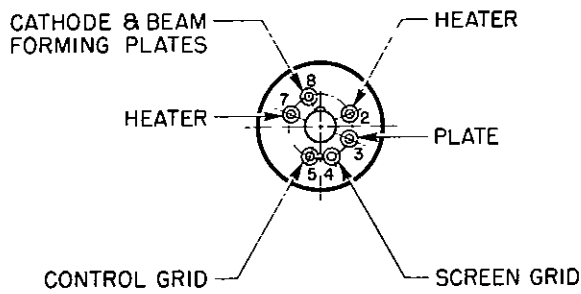
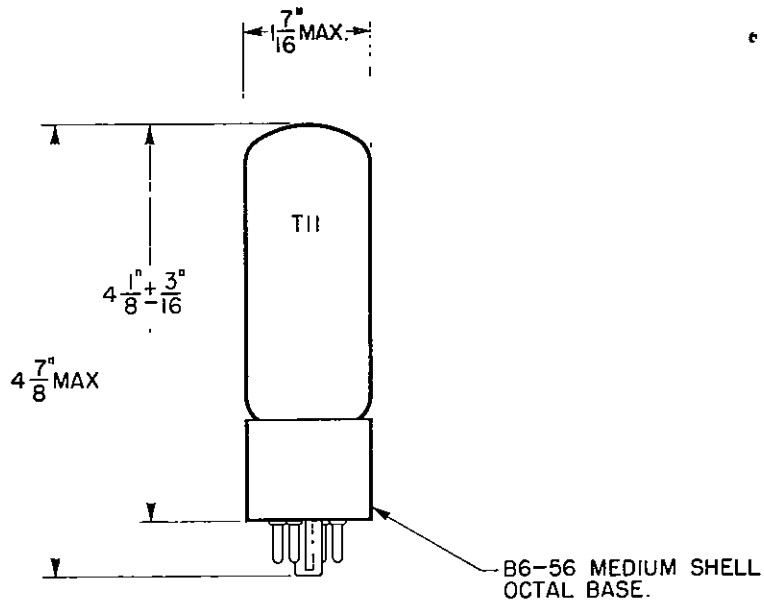
## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Plate Voltage . . . . .	45	90	120 volts
Screen Grid Voltage . . . . .	45	90	120 volts
Control Grid Voltage . . . . .	-4	-7.5	-12 volts
Peak A-F Grid Voltage . . . . .	4	7.5	12 volts
Zero Signal Plate Current . . . . .	12.5	33	34 milliamperes
Maximum Signal Plate Current . . . . .	13.8	34	37 milliamperes
Zero Signal Screen Grid Current . . . . .	1.5	3.7	3.7 milliamperes
Maximum Signal Screen Grid Current . . . . .	4.0	11.7	19.0 milliamperes
Transconductance . . . . .	4800	6600	6200 micromhos
Plate Resistance . . . . .	9300	7800	8000 ohms
Load Resistance . . . . .	2800	2500	2500 ohms
Maximum Signal Power Output . . . . .	0.25	1.4	2.5 watts
Total Harmonic Distortion . . . . .	10	8	14 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.