

BEAM PENTODE

FOR AF POWER AMPLIFIER APPLICATIONS

DESCRIPTION AND RATING

The 5881 is a beam pentode designed primarily for use in audio-frequency power amplifier applications where relatively large power outputs are required. In addition to high power output capabilities, the tube features high power sensitivity, high efficiency, and low third and higher-order harmonic distortion. Except for increased maximum ratings, the 5881 is electrically equivalent to the 6L6-G.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC.....6.3 $\pm$ 10% Volts

Heater Current.....0.9 Amperes

MECHANICAL

Mounting Position—Any

Envelope—T-11, Glass

Base—B7-59, Short Intermediate Shell Octal 7-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES

Plate Voltage.....360 Volts

Screen Voltage.....270 Volts

Plate Dissipation.....23 Watts

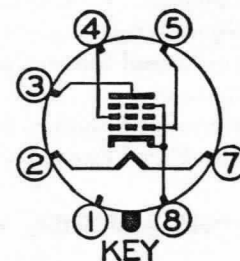
Screen Dissipation.....3.0 Watts

Heater-Cathode Voltage

Heater Positive with Respect to Cathode.....200 Volts

Heater Negative with Respect to Cathode.....200 Volts

BASING DIAGRAM

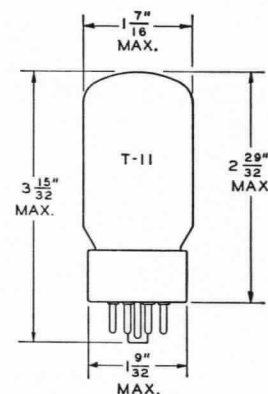


RETMA 7AC

TERMINAL CONNECTIONS

- Pin 1—No Connection
- Pin 2—Heater
- Pin 3—Plate
- Pin 4—Grid Number 2 (Screen)
- Pin 5—Grid Number 1
- Pin 7—Heater
- Pin 8—Cathode and Beam Plates

PHYSICAL DIMENSIONS



5881

CHARACTERISTICS AND TYPICAL OPERATION

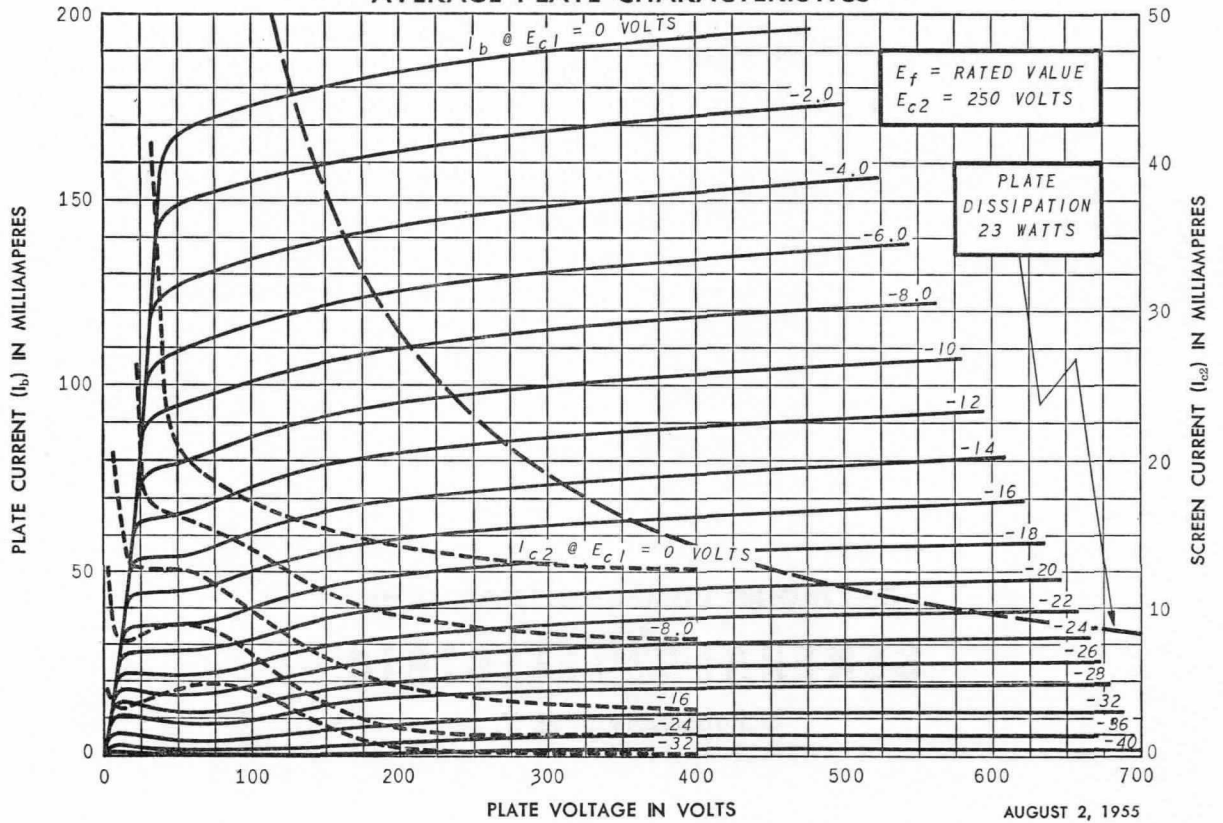
CLASS A₁ AMPLIFIER

Plate Voltage	250	300	350	Volts
Screen Voltage	250	200	250	Volts
Grid-Number 1 Voltage	-14	-12.5	-18	Volts
Peak AF Grid-Number 1 Voltage	14	12.5	18	Volts
Plate Resistance, approximate	30,000	35,000	48,000	Ohms
Transconductance	6100	5300	5200	Micromhos
Zero-Signal Plate Current	75	48	53	Milliamperes
Maximum-Signal Plate Current	80	55	65	Milliamperes
Zero-Signal Screen Current	4.3	2.5	2.5	Milliamperes
Maximum-Signal Screen Current	7.6	4.7	8.5	Milliamperes
Load Resistance	2500	4500	4200	Ohms
Total Harmonic Distortion, approximate	10	11	13	Percent
Maximum-Signal Power Output	6.7	6.5	11.3	Watts

PUSH-PULL AMPLIFIER, Values For Two Tubes

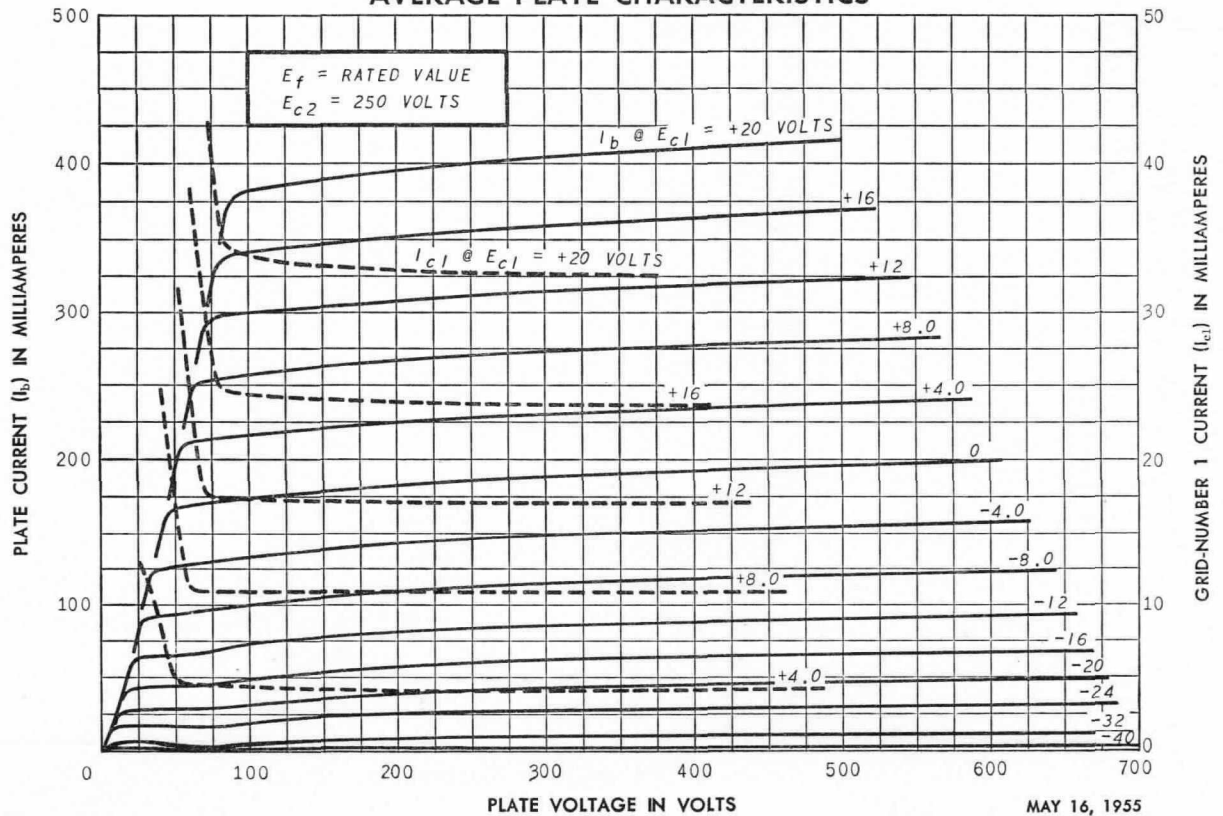
	Class A ₁		Class AB ₁		Class AB ₂		
Plate Voltage	250	270	360	360	360	360	Volts
Screen Voltage	250	270	270	270	225	270	Volts
Grid-Number 1 Voltage	-16	-17.5	-22.5	-22.5	-18	-22.5	Volts
Peak AF Grid-to-Grid Voltage	32	35	45	45	52	72	Volts
Zero-Signal Plate Current	120	134	88	88	78	88	Milliamperes
Maximum-Signal Plate Current	140	155	132	140	142	205	Milliamperes
Zero-Signal Screen Current	10	11	5.0	5.0	3.5	5.0	Milliamperes
Maximum-Signal Screen Current	16	17	15	11	11	16	Milliamperes
Effective Load Resistance	5000	5000	6600	3800	6000	3800	Ohms
Total Harmonic Distortion, approximate	2	2	2	2	2	2	Percent
Maximum-Signal Power Output	14.5	17.5	26.5	18	31	47	Watts

AVERAGE PLATE CHARACTERISTICS



AUGUST 2, 1955

AVERAGE PLATE CHARACTERISTICS



MAY 16, 1955

ELECTRONIC COMPONENTS DIVISION
GENERAL ELECTRIC
Schenectady 5, N. Y.