



12V6-GT

Description and Rating

BEAM PENTODE

The 12V6-GT is a beam pentode designed primarily for use in the audio output stage of a-c and storage-battery-operated equipment. It is capable of supplying high power output with high sensitivity, high efficiency and low third and higher-order harmonic distortion. Except for heater ratings, the electrical characteristics of the 12V6-GT are identical to those of the 6V6-GT.

GENERAL

Cathode - Coated Unipotential
 Heater Voltage, AC or DC 12.6 Volts
 Heater Current 0.225 Amperes
 Envelope - T-9, Glass
 Base - B6-81 or B7-7, Intermediate Shell Octal
 or B6-84 or B7-59, Short Intermediate Shell Octal
 Mounting Position - Any

Direct Interelectrode Capacitances, approximate *
 Grid-Number 1 to Plate 0.7 $\mu\mu\text{f}$
 Input 9.0 $\mu\mu\text{f}$
 Output 7.5 $\mu\mu\text{f}$

MAXIMUM RATINGS

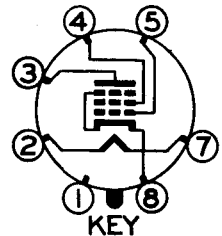
DESIGN-CENTER VALUES

Plate Voltage	315	Volts
Screen-Supply Voltage	315	Volts
Screen Voltage	285	Volts
Plate Dissipation	12	Watts
Screen Dissipation	2.0	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	90	Volts
Heater Negative with Respect to Cathode	90	Volts
Grid-Number 1 Circuit Resistance		
With Fixed Bias	0.1	Megohms
With Cathode Bias	0.5	Megohms

* Without external shield.

+ Pin 1 omitted on bases B6-81 and B6-84.

BASING DIAGRAM

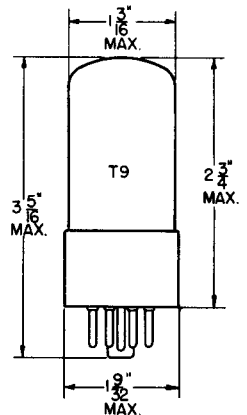


RETMA 7AC
BOTTOM VIEW

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



RETMA 9-11 or 9-41

CHARACTERISTICS AND TYPICAL OPERATION

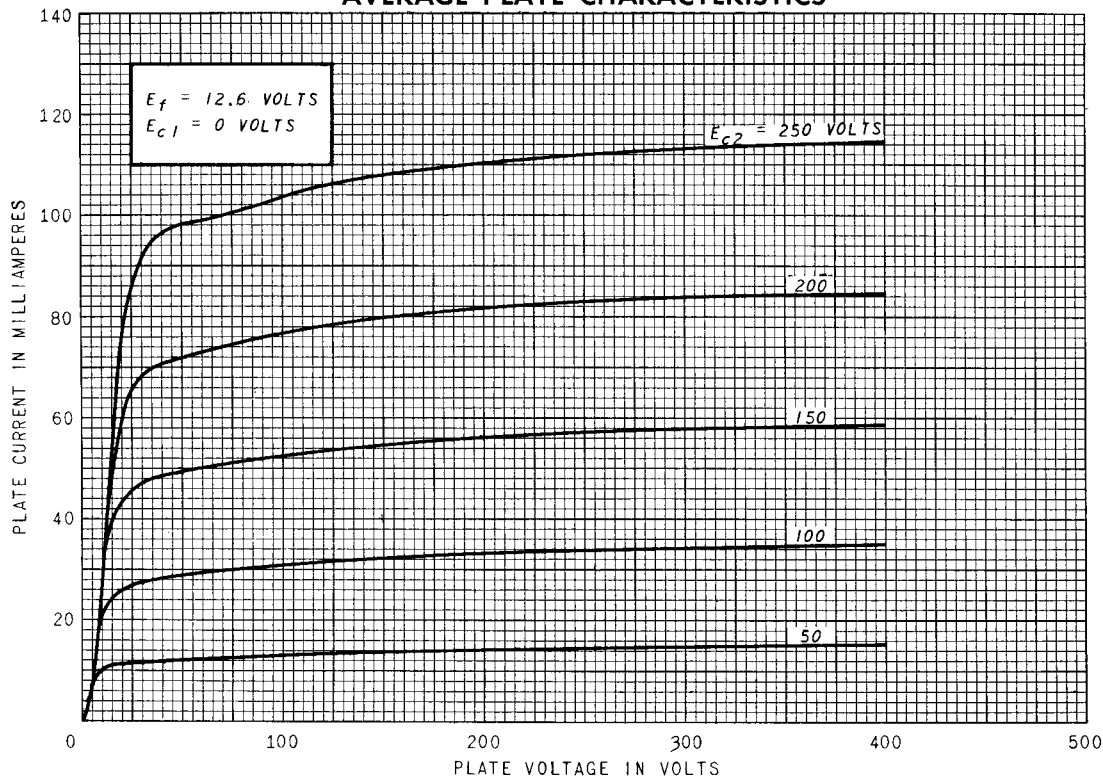
CLASS A₁ AMPLIFIER

Plate Voltage	180	250	315	Volts
Screen Voltage	180	250	225	Volts
Grid-Number 1 Voltage	-8.5	-12.5	-13.0	Volts
Peak AF Grid-Number 1 Voltage	8.5	12.5	13.0	Volts
Plate Resistance, approximate	50000	50000	80000	Ohms
Transconductance	3700	4100	3750	Micromhos
Zero-Signal Plate Current	29	45	34	Milliamperes
Maximum-Signal Plate Current	30	47	35	Milliamperes
Zero-Signal Screen Current	3.0	4.5	2.2	Milliamperes
Maximum-Signal Screen Current	4.0	7.0	6.0	Milliamperes
Load Resistance	5500	5000	8500	Ohms
Total Harmonic Distortion, approximate	8	8	12	Percent
Maximum-Signal Power Output	2.0	4.5	5.5	Watts

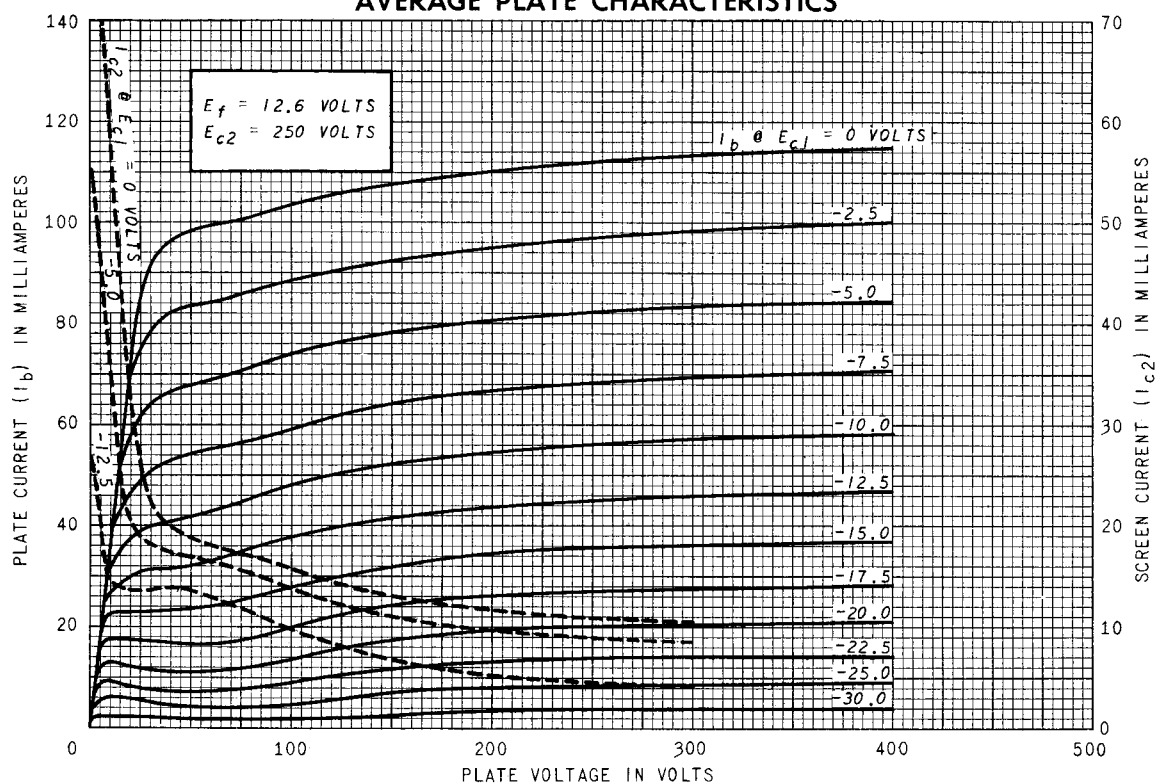
PUSH-PULL CLASS AB₁ AMPLIFIER, VALUES FOR TWO TUBES

Plate Voltage	250	285	Volts
Screen Voltage	250	285	Volts
Grid-Number 1 Voltage	-15	-19	Volts
Peak AF Grid-to-Grid Voltage	30	38	Volts
Zero-Signal Plate Current	70	70	Milliamperes
Maximum-Signal Plate Current	79	92	Milliamperes
Zero-Signal Screen Current	5.0	4.0	Milliamperes
Maximum-Signal Screen Current	13	13.5	Milliamperes
Effective Load Resistance, Plate-to-Plate	10000	8000	Ohms
Total Harmonic Distortion, approximate	5	3.5	Percent
Maximum-Signal Power Output	10	14	Watts

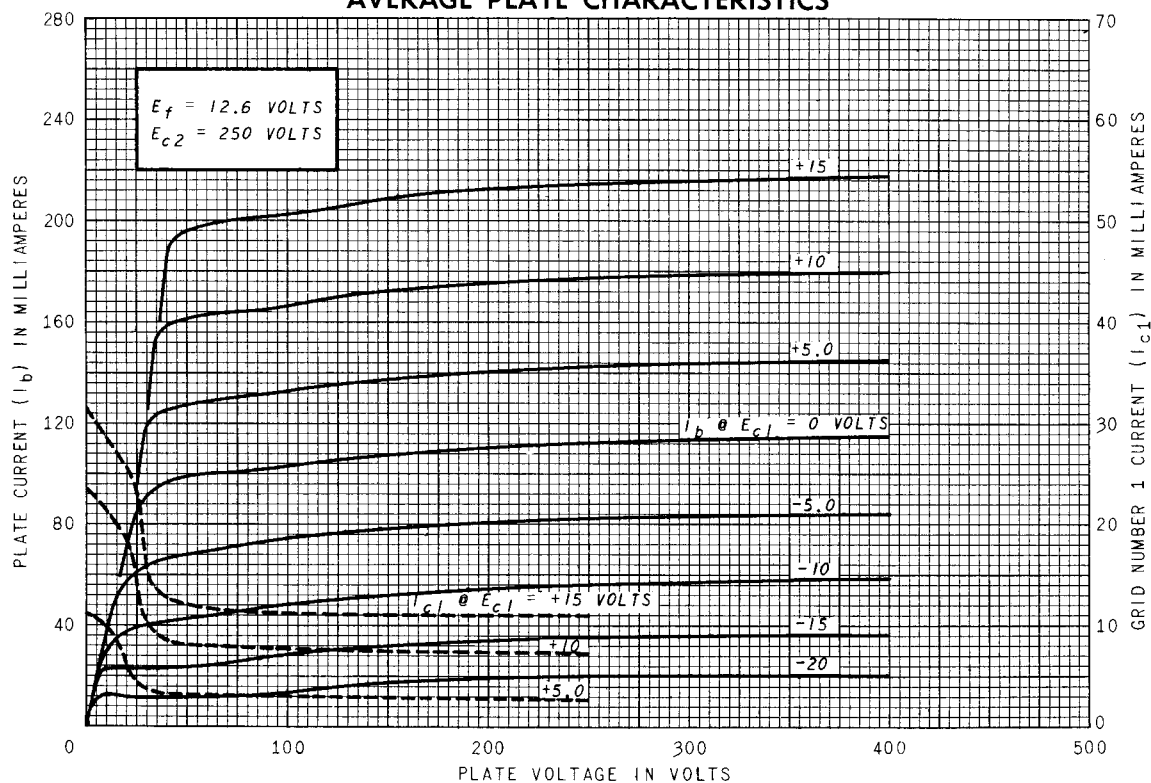
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

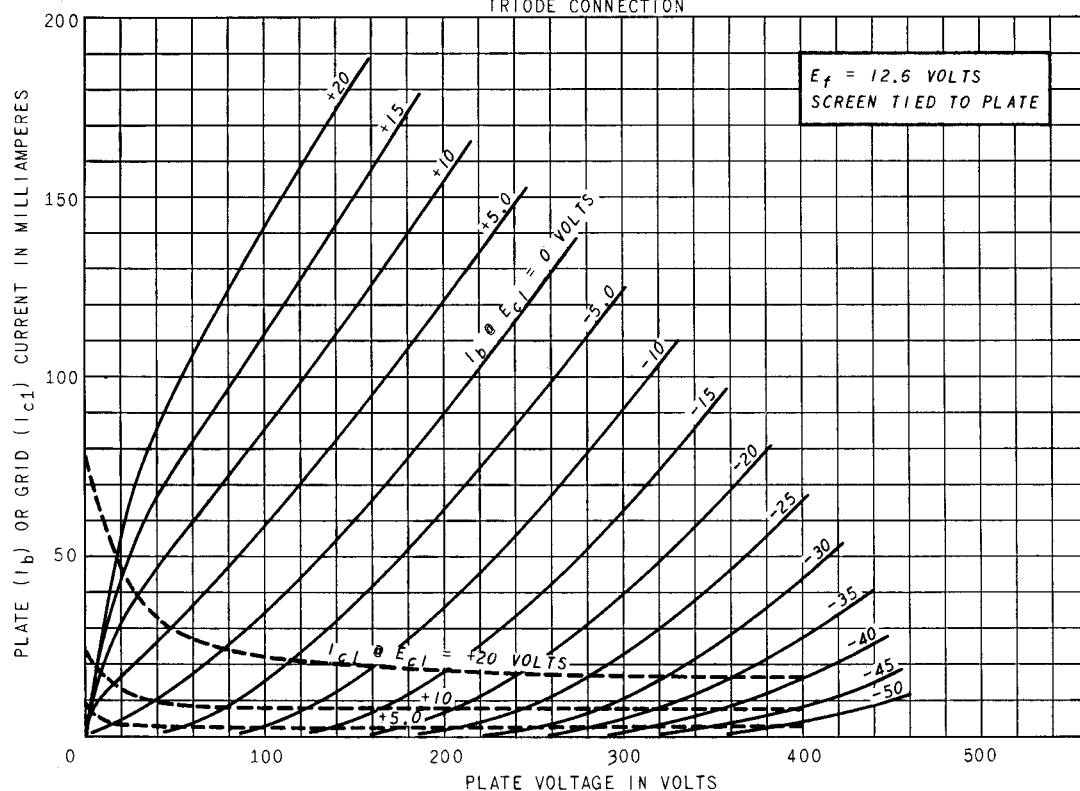


AVERAGE PLATE CHARACTERISTICS

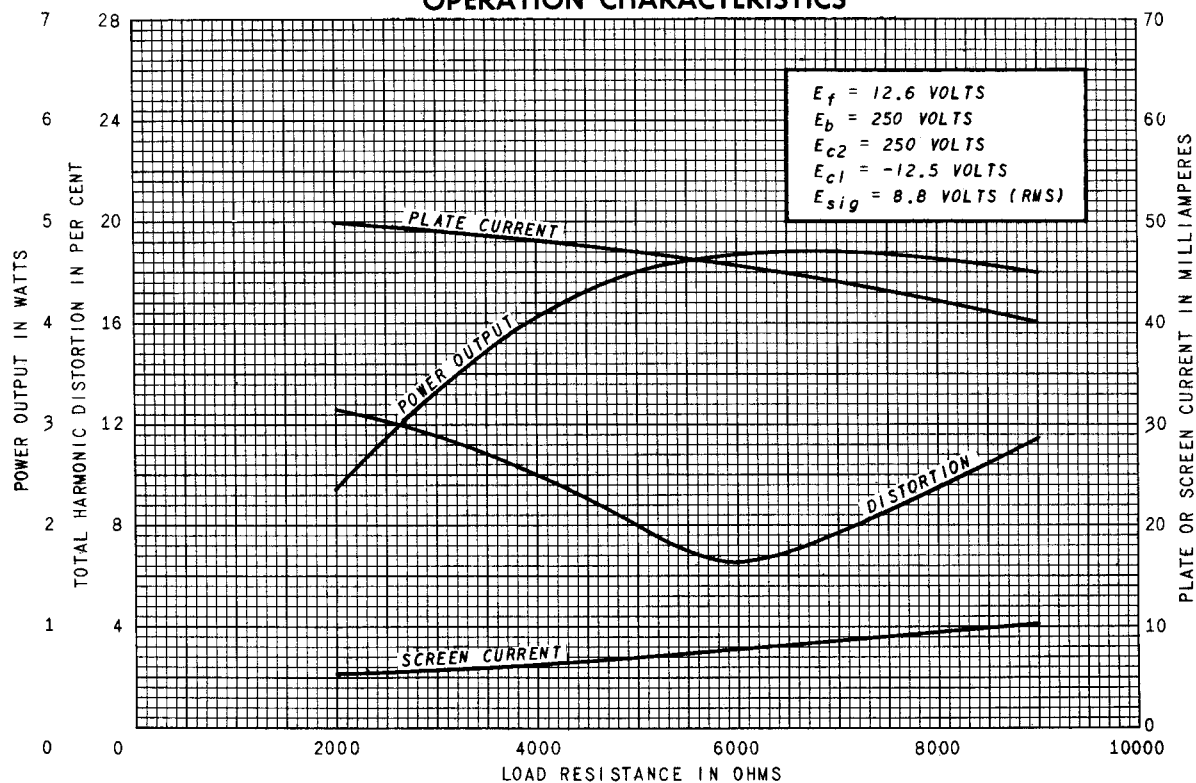


AVERAGE PLATE CHARACTERISTICS

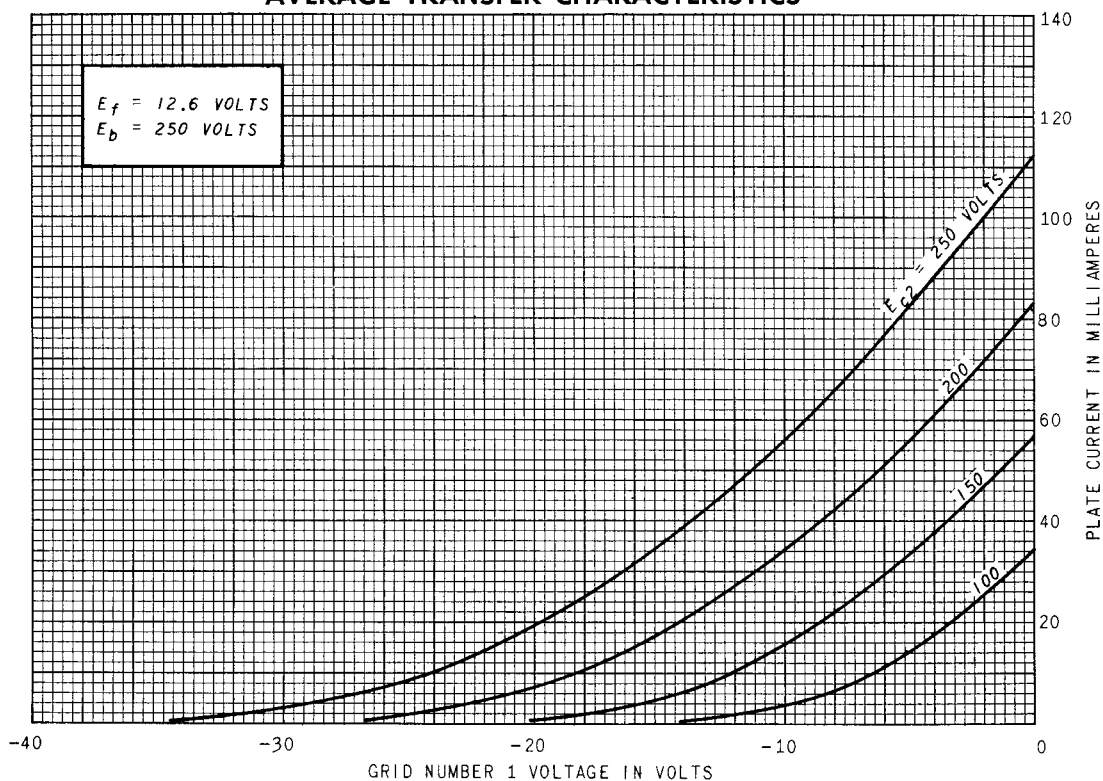
TRIODE CONNECTION



OPERATION CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

