

HORIZONTAL AMPLIFIER BEAM-POWER PENTODE TYPE 6CD6-GA

The 6CD6-GA is an octal based beam-power pentode type designed for service as the output amplifier in horizontal deflection circuits in television receivers. This type is characterized by high zero bias plate current and high DC plate supply voltage ratings. These features with a plate dissipation rating of 20 watts make this tube especially desirable for its designed service.

ELECTRICAL:

Cathode.....	Coated Unipotential
Filament:	
Voltage (ac or dc)	6.3 ± 10% Volts
Current	2.5 Ampere
Direct Interelectrode Capacitances (Unshielded):	
Grid to Plate	1.1 μμf
Input.....	22 μμf
Output.....	8.5 μμf

MECHANICAL:

Bulb.....	T-12
Base.....	Short Shell Medium Octal
Basing.....	5BT
Top Cap.....	C1-1
Mounting Position §	Vertical

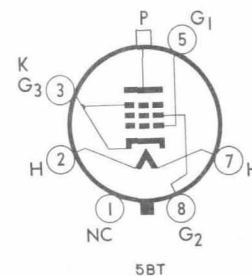
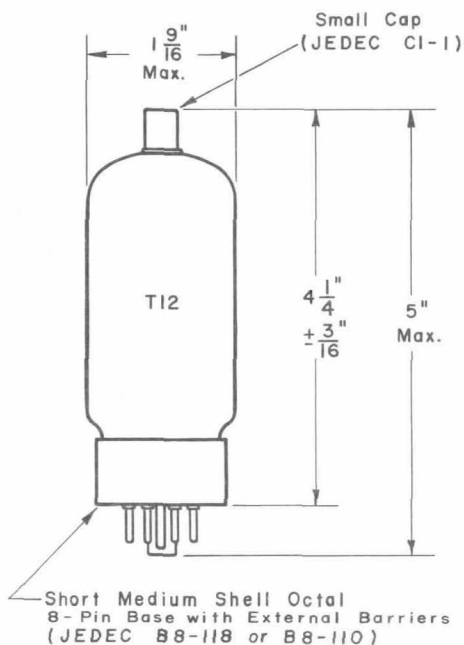
MAXIMUM RATINGS:

Design Center Values

D.C. Plate Supply Voltage (Boost + D.C. Power Supply)	700	max.	Volts
Peak Positive Plate Voltage	7000 abs.	max.	Volts
Peak Negative Pulse Plate Voltage.....	1500	max.	Volts
Plate Dissipation ▲	20	max.	Watts
Peak Negative Grid 1 Voltage.....	200	max.	Volts
D.C. Grid 2 Voltage	175	max.	Volts
Grid 2 Dissipation	3	max.	Watts
Average Cathode Current.....	200	max.	Ma.
Peak Cathode Current.....	700	max.	Ma.
Grid 1 Circuit Resistance	0.47	max.	Megohm
Bulb Temperature (At Hottest Point) ...	225	max.	°C

Heater-Cathode Voltage:

Heater Negative with Respect to Cathode			
Total DC + Peak	200	max.	Volts
Heater Positive with Respect to Cathode			
DC Component.....	100	max.	Volts
Total DC + Peak	200	max.	Volts



AVERAGE CHARACTERISTICS

PENTODE OPERATION:

Plate Voltage	175	Volts
Grid 2 Voltage	175	Volts
Grid 1 Voltage	-30	Volts
Plate Current	75	Ma.
Grid 2 Current	5.5	Ma.
Transconductance	7700	μ mhos
Plate Resistance	7200	Ohms

ZERO BIAS:

Plate Voltage	60	Volts
Grid 2 Voltage	100	Volts
Plate Current	230	Ma.
Grid 2 Current	21	Ma.

CUTOFF:

Plate Voltage	175	Volts
Grid 2 Voltage	175	Volts
Plate Current	1.0	Ma.
Grid 1 Voltage (Approx.)	-55	Volts

TRIODE AMPLIFICATION FACTOR:

Plate Voltage	175	Volts
Grid 2 Voltage	175	Volts
Grid 1 Voltage	-30	Volts
Amplification Factor	3.9	

⚡ For operation in a 525-line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission." The duty cycle of the voltage pulse not to exceed 15% of the scanning cycle.

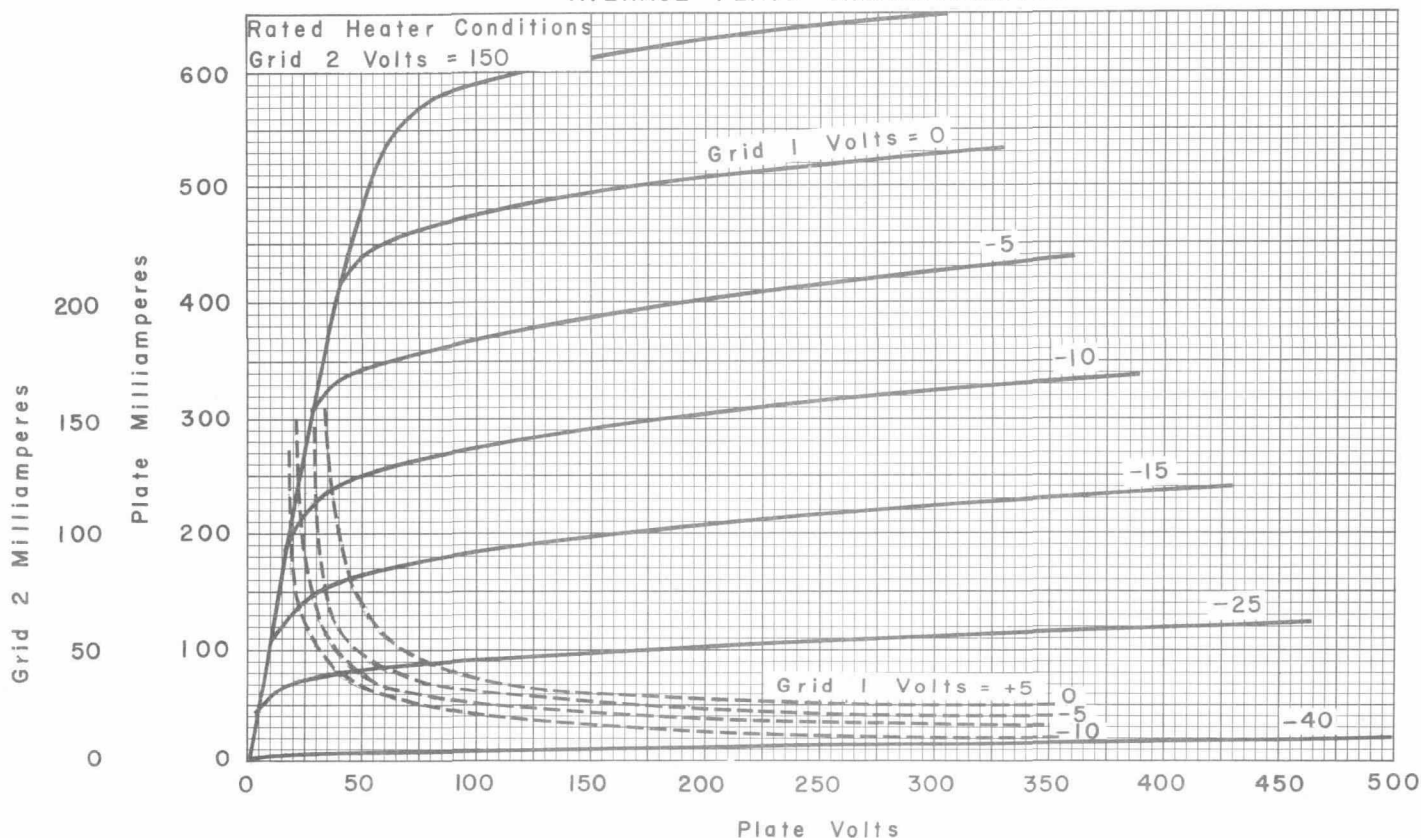
▲ In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

□ Applied for short interval (maximum of 2 seconds) so as not to damage tube.

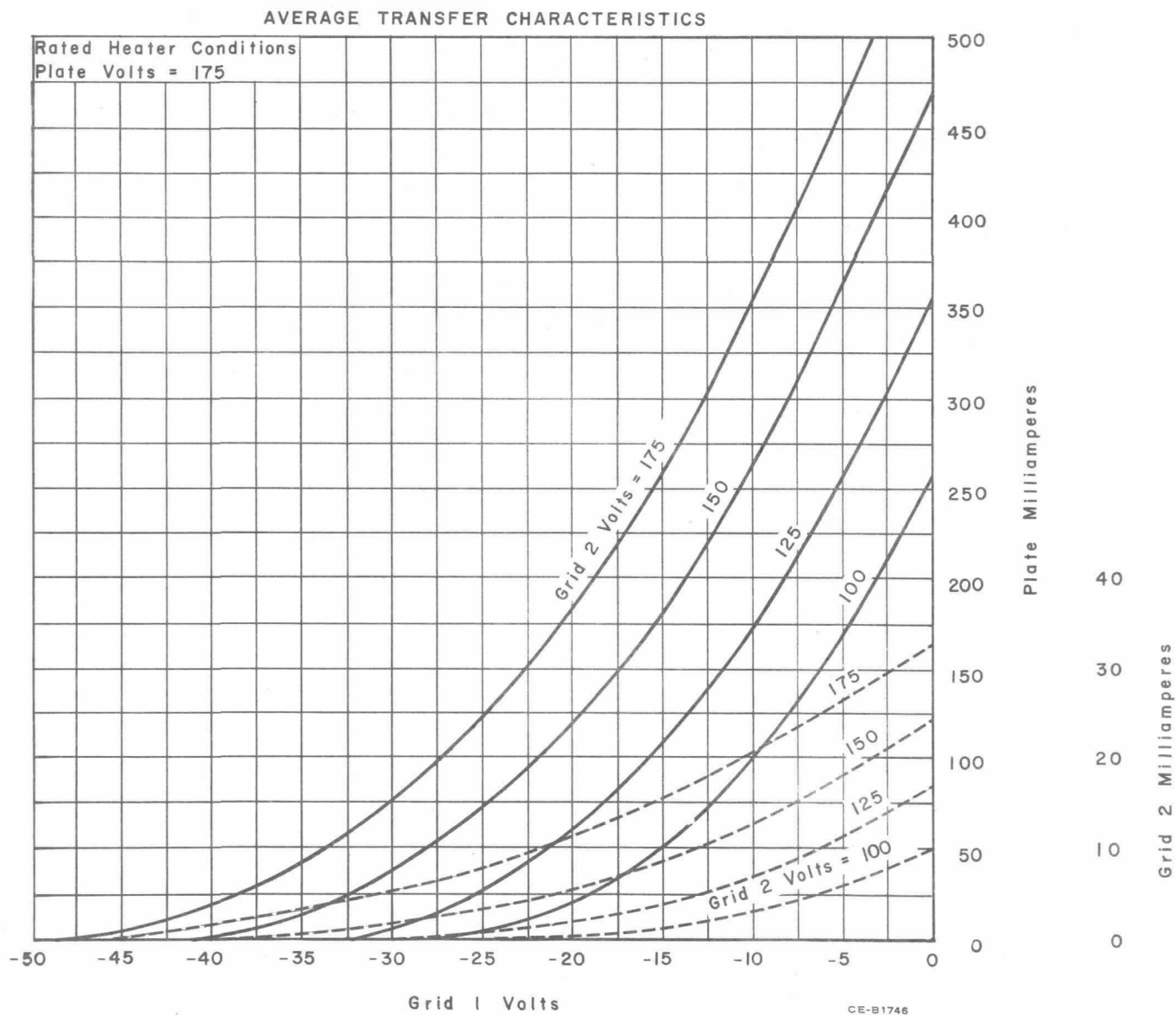
⊕ These values can be measured by a method involving a recurrent waveform that such the plate and grid 2 dissipation will be kept within ratings to prevent damage to the tube.

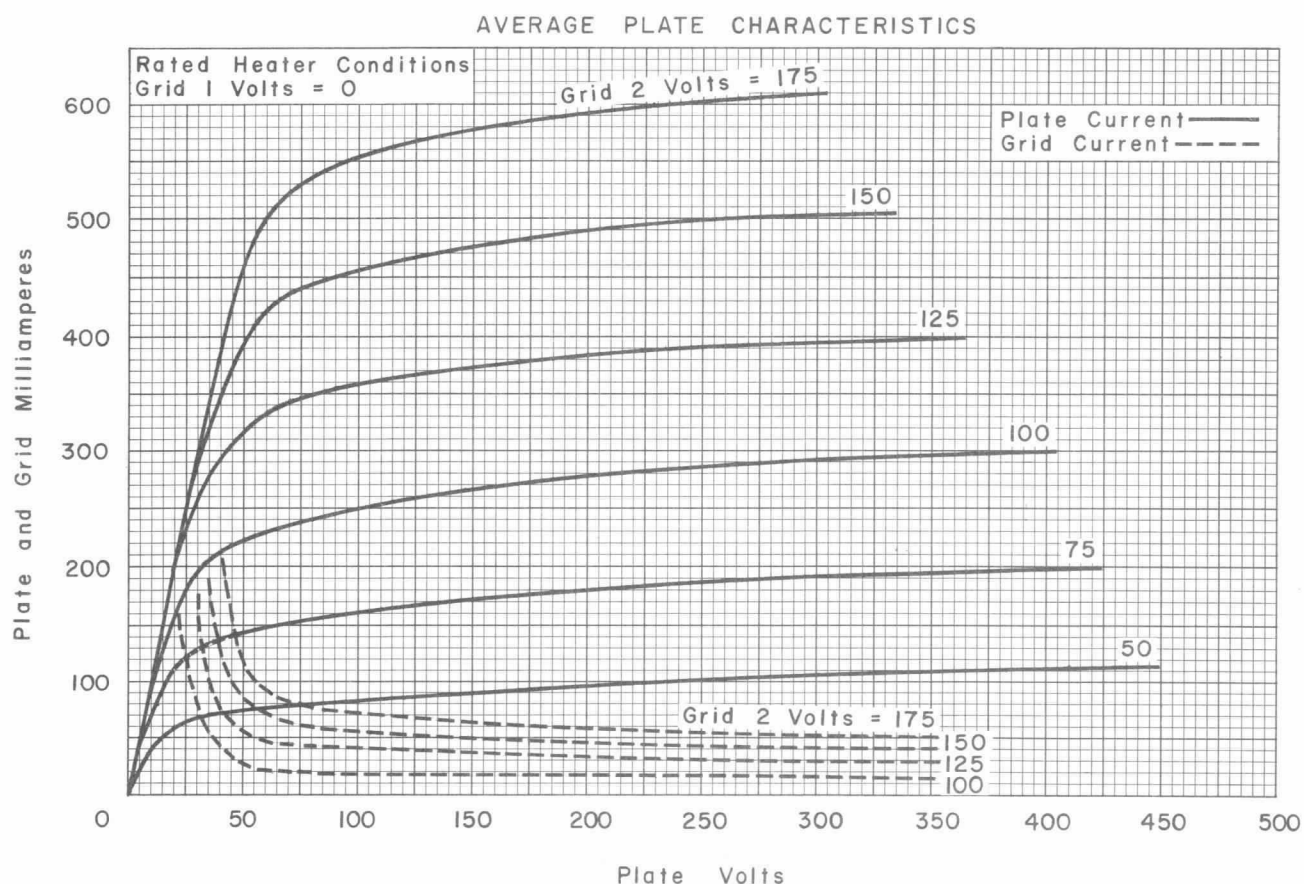
§ Vertical position is preferred. However, horizontal operation is permitted if plane of pins 2 and 7 is vertical.

AVERAGE PLATE CHARACTERISTICS



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