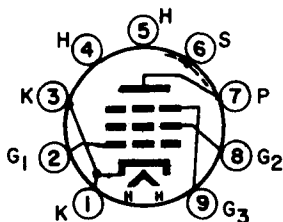


AMPEREX TUBE TYPE 4EH7/YF183

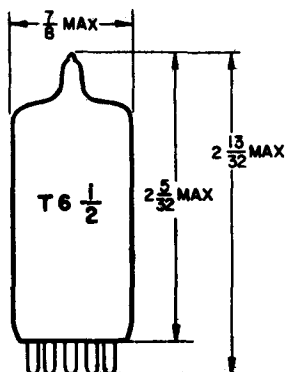
TENTATIVE DATA

The Amperex 4EH7/YF183 is a frame grid remote cut-off pentode designed for use as an IF amplifier in television receivers. Its high variable transconductance, with low interelectrode and low feed back capacitance, enables the construction of simplified broad band amplifiers with high stability. The higher gain per stage in many instances reduces the number of tubes required in the television IF strip. The 4EH7/YF183 is designed for 450 mA controlled warm-up series string operation.



PIN CONNECTIONS

- 1 - CATHODE
- 2 - GRID NO. 1
- 3 - CATHODE
- 4 - HEATER
- 5 - HEATER
- 6 - SHIELD
- 7 - PLATE
- 8 - GRID NO. 2
- 9 - GRID NO. 3



GENERAL CHARACTERISTICS

MECHANICAL

Bulb
Base
Dimensions

T 6 1/2
E 9-1
see outline drawing

ELECTRICAL

Cathode
Heater current
Heater voltage

coated, unipotential
450 mA
4.4 volts

Direct Interelectrode Capacitances

Input
Output
Plate to grid No. 1

9.5 μf
3 μf
0.005 μf

4EH7/YF183

Maximum Ratings, Design Center

Plate voltage, cut-off condition	550 volts max
Plate voltage	250 volts max
Plate dissipation	2.5 watts max
Screen grid voltage, cut-off condition	550 volts max
Screen grid voltage	250 volts max
Screen grid dissipation	0.65 watts max
Cathode current	20 mA max
Control grid series resistance	1 megohm max
Heater-cathode voltage	150 volts max
Heater-cathode circuit resistance	20,000 ohms max
Negative grid no. 1 voltage	
(Grid No. 1 current = + 0.3 μ A)	1.3 volts max
Peak negative grid no. 1 voltage	50 volts max

Typical Characteristics

Plate voltage	200 volts
Grid no. 3 voltage	0 volts
Screen grid voltage	90 volts
Control grid voltage	- 2 volts
Plate current	12 mA
Screen grid current	4.5 mA
Transconductance	12,500 micromhos
Plate resistance	0.5 megohms
Input resistance	10,000 ohms
(f = 40 Mc/s)	

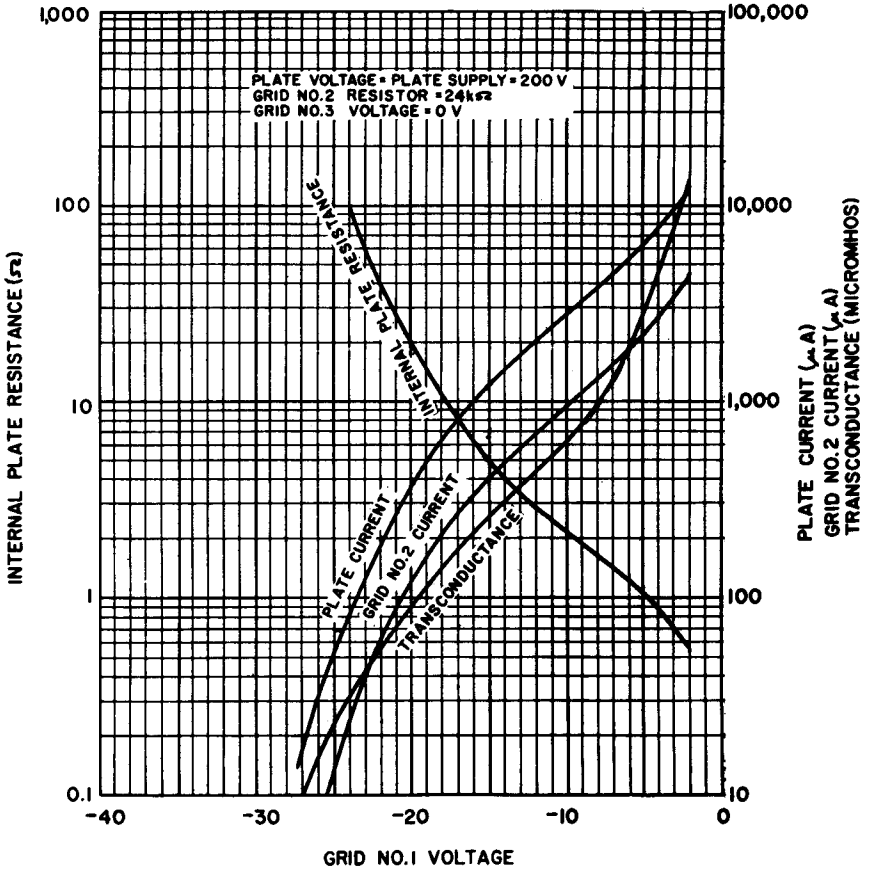
Typical Operation ¹

Plate voltage	200 volts
Screen grid supply voltage	200 volts
Grid No. 3 voltage	0 volts
Screen grid series resistance	24,000 ohms
Negative control grid voltage	2 6.5 9.5 19.5 volts
Transconductance	12,500 1250 625 125 micromhos
Input voltage for cross-modulation = 1%	100 160 450 millivolts

¹ Operation with cathode bias resistor and/or screen grid resistor is recommended.

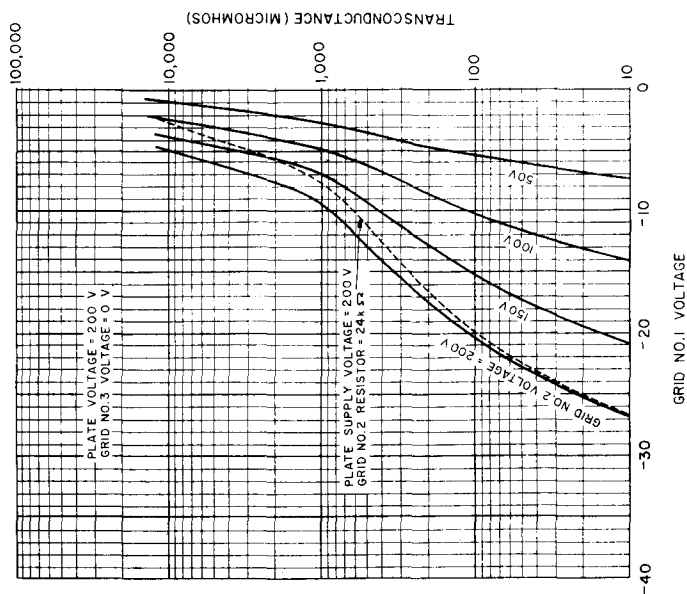
4EH7/YF183

AVERAGE CHARACTERISTICS



4EH7/YF183

AGC CHARACTERISTICS



TRANSFER CHARACTERISTICS

