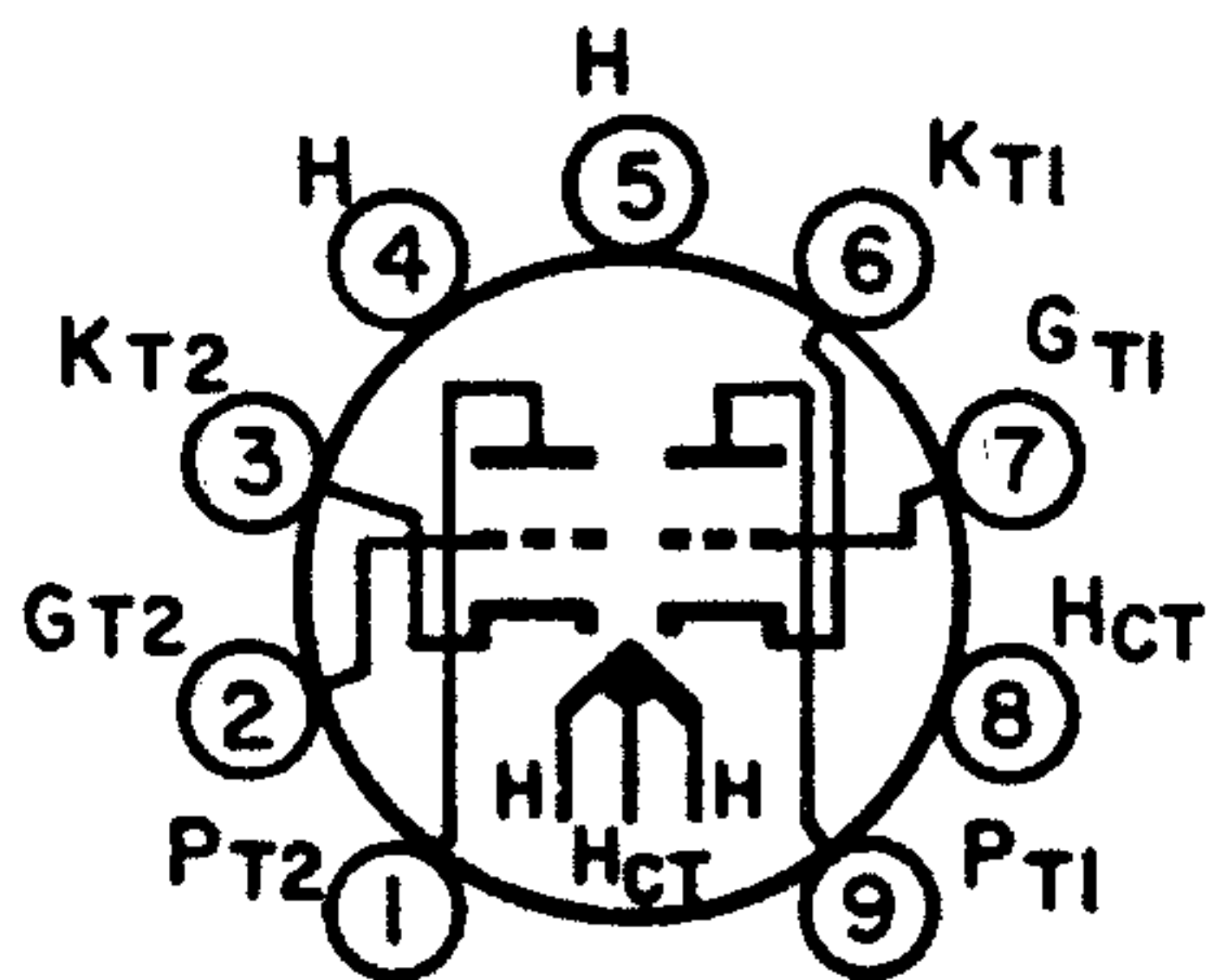


AMPEREX TUBE TYPE 7119/E182CC

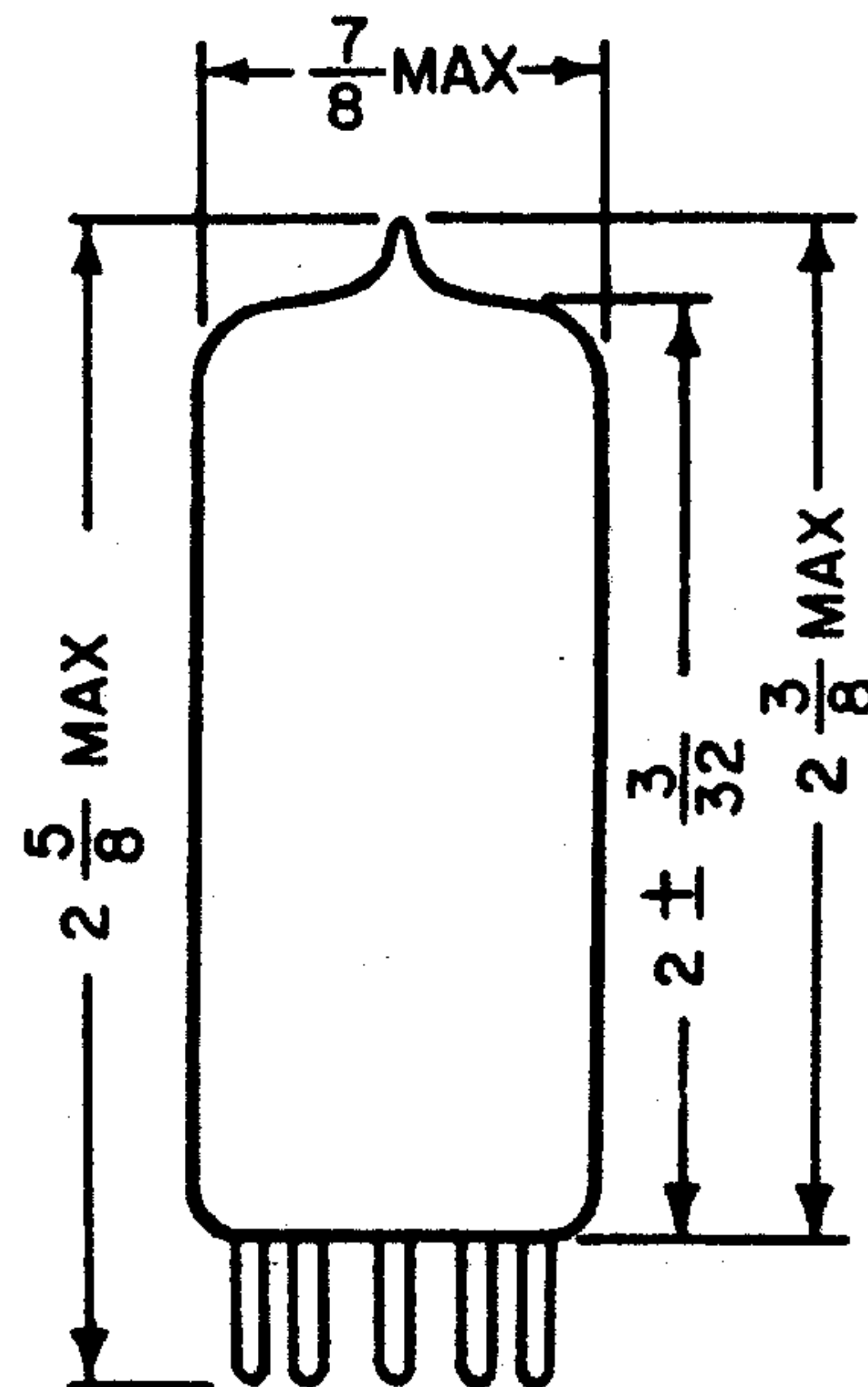
The Amperex 7119/E182CC is a medium-mu, high perveance, twin triode designed for application in computer circuits. The tube features exceptional freedom from cathode interface and is characterized by high zero-bias plate current. In many applications the tube is a replacement for the 5687.

The 7119/E182CC is one of the Amperex "Premium Quality 10,000 Hour" tubes.



PIN CONNECTIONS

- 1- PLATE , TRIODE 2
- 2- GRID, TRIODE 2
- 3- CATHODE , TRIODE 2
- 4- HEATER
- 5- HEATER
- 6- CATHODE, TRIODE 1
- 7- GRID , TRIODE 1
- 8- HEATER
- CENTER TAP
- 9- PLATE, TRIODE 1



GENERAL CHARACTERISTICS

MECHANICAL DATA

Cathode
Base
Bulb
Outline
Base Connections
Mounting Position

coated, unipotential
E9-1
T6½
6-3
9-H
Any

ELECTRICAL

Heater Characteristics

Heater Voltage
Heater Current

Series	Parallel
12.6 ± 5%	6.3 ± 5% volts
320	640 mA

Direct Interelectrode Capacitances

Input
Output
Plate to Grid
Cathode to Heater

	Triode No. 1	Triode No. 2
Input	6.0	6.0 μμf
Output	1.1	1.0 μμf
Plate to Grid	4.0	4.1 μμf
Cathode to Heater	4.0	4.0 μμf

Between Sections

Grid to Grid
Plate to Plate
Plate of Triode 1 to Grid of Triode 2
Plate of Triode 2 to Grid of Triode 1

Grid to Grid	0.15 μμf
Plate to Plate	0.6 μμf
Plate of Triode 1 to Grid of Triode 2	0.1 μμf
Plate of Triode 2 to Grid of Triode 1	0.1 μμf

7119/E182CC

Characteristics (Each Section)

Plate Voltage	120	150 volts
Grid Voltage	-2	-14 volts
Plate Current	36	max 0.2 mA
Transconductance	15,000	micromhc
Amplification Factor	24	

Maximum Ratings, Absolute Values (Each Section)

Plate Voltage	300 volts
Plate Supply Voltage	600 volts
Negative Grid Voltage	100 volts
Peak Negative Grid Voltage ¹	200 volts
Positive Grid Voltage	1 volt
Peak Positive Grid Voltage ¹	30 volts
Peak Heater-to-Cathode Voltage	200 volts
Grid Current	8 mA
Peak Grid Current ¹	200 mA
Cathode Current	60 mA
Peak Cathode Current ¹	400 mA
Plate Dissipation	4.5 watts
Plate Dissipation of Both Sections	8 watts
Bulb Temperature	160°C

Maximum Ratings, Absolute Values for Circuit Design

Grid Resistor (fixed bias)	0.5 megohm
Grid Resistor (automatic bias)	1 megohm

Characteristic Range Values for Equipment Design

	<u>Min</u>	<u>Max</u>
Heater Current	605	675 mA
Plate Current ($E_b = 90V, I_c = 250 \mu A$)	41	62 mA
Plate Current ($E_b = 120V, E_c = -2V$)	26	45 mA
Plate Current ($E_b = 150V, E_c = -14V$)	--	0.2 mA
Negative grid current ($E_b = 120V, E_c = -2V, R_g = 0.1 \text{ meg}$)	--	0.2 mA
Heater-Cathode leakage current ($E_{hk} = 200V, R = 1 \text{ meg}$)	--	15 μA
Transconductance ($E_b = 120V, R_k = 55 \text{ ohms}$)	11,200	18,800 micromho
Insulation resistance	100	-- megohms

Direct Interelectrode Capacitances

Triode No. 1

Input	5.3	6.7 μf
Output	0.75	1.45 μf
Plate to grid	3.4	4.6 μf

Triode No. 2

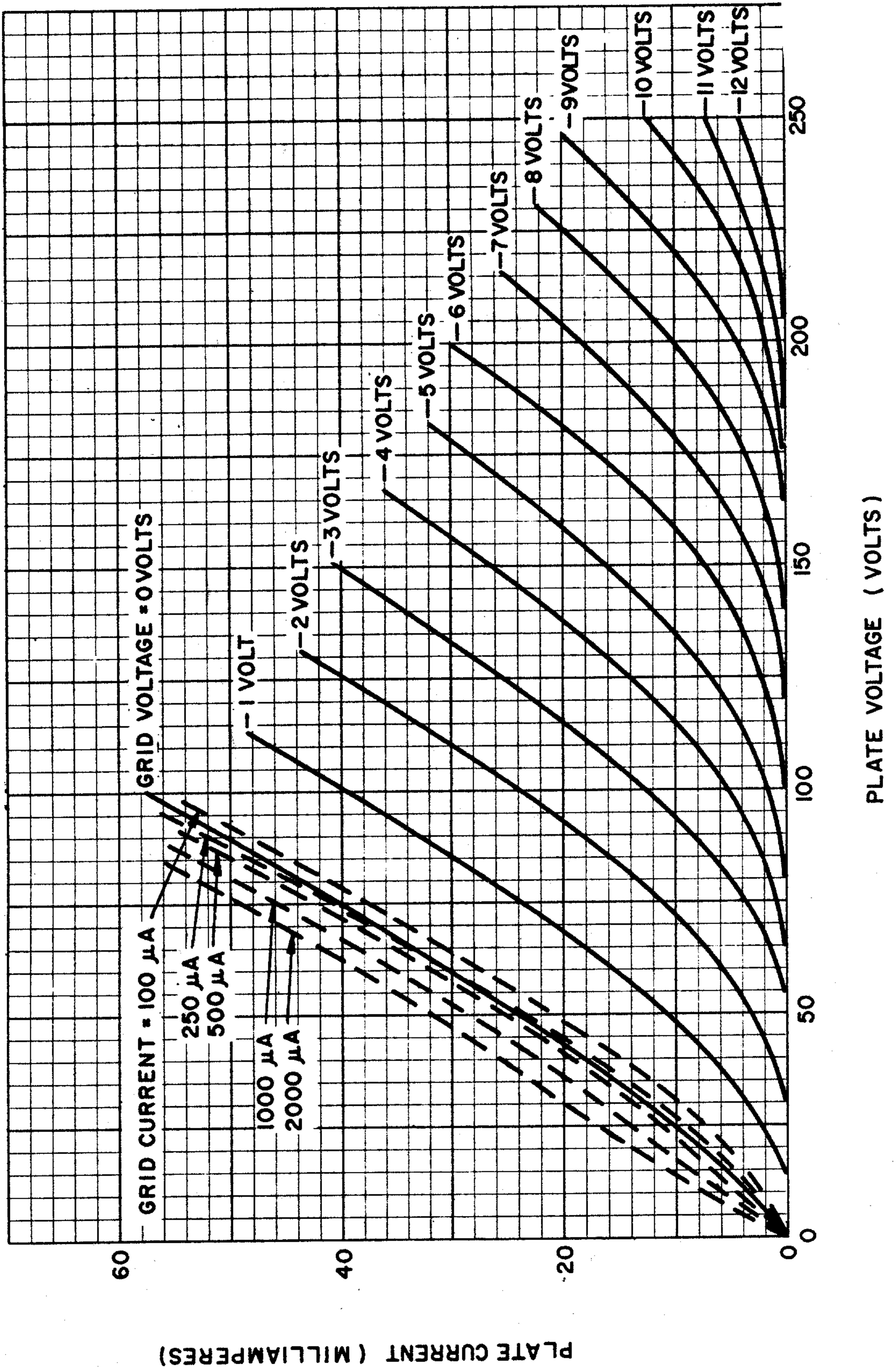
Input	5.3	6.7 μf
Output	0.65	1.35 μf
Plate to grid	3.4	4.8 μf

Between Sections

Grid to grid	--	0.15 μf
Plate to plate	--	0.8 μf
Plate of Triode 1 to grid of Triode 2	--	0.1 μf
Plate of Triode 2 to grid of Triode 1	--	0.1 μf

¹ Pulse duration, 10 microseconds; duty cycle, 1%.

PLATE CHARACTERISTICS



7119/E182CC

TRANSFER CHARACTERISTICS

GRID CURRENT (MICROAMPERES)

PLATE CURRENT (MILLIAMPERES)

