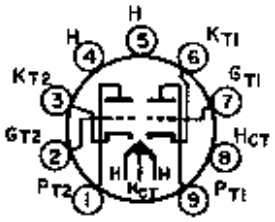
AMPEREX TUBE TYPE 7119/E182CC

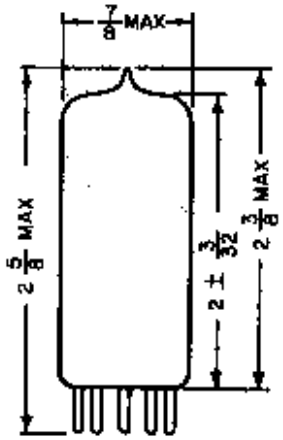
The Amperex 7119/E182CC is a medium-mu, high perveance, twin triode designed for application in computer circuits. The tube features exceptional freedom from cathode interface and is characterized by high zero-bias plate current. In many applications the tube is a replacement for the 5687.

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	coated, unipotential
Base	E9-1
Bulb	T6½
Outline	6-3
Base Connections	9-H
Mounting Position	Any

ELECTRICAL

Heater Characteristics

	Series	Parallel	
Heater Voltage	12.6 ± 5%	6.3 ± 5%	volts
Heater Current	320	640	mA

Direct Interelectrode Capacitances	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	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

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Characteristics (Each Section)

Plate Voltage	120	150 volts
Grid Voltage	−2	−14 volts
Plate Current	36	max 0.2 mA
Transconductance	15,000	micromhr
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

	Min	Max
Heater Current	605	675 mA
Plate Current (E_b = 90V, I_c = 250 μA)	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 meg)	--	0.2 mA
Heater-Cathode leakage current (E_{hk} = 200V, R = 1 meg)	--	15 μA
Transconductance (E_b = 120V, R_k = 55 ohms)	11,200	18,800 micromho
Insulation resistance	100	-- megohms

Direct Interelectrode Capacitances

Triode No. 1		
Input	5.3	6.7 μμf
Output	0.75	1.45 μμf
Plate to grid	3.4	4.6 μμf
Triode No. 2		
Input	5.3	6.7 μμf
Output	0.65	1.35 μμf
Plate to grid	3.4	4.8 μμf
Between Sections		
Grid to grid	--	0.15 μμf
Plate to plate	--	0.8 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

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

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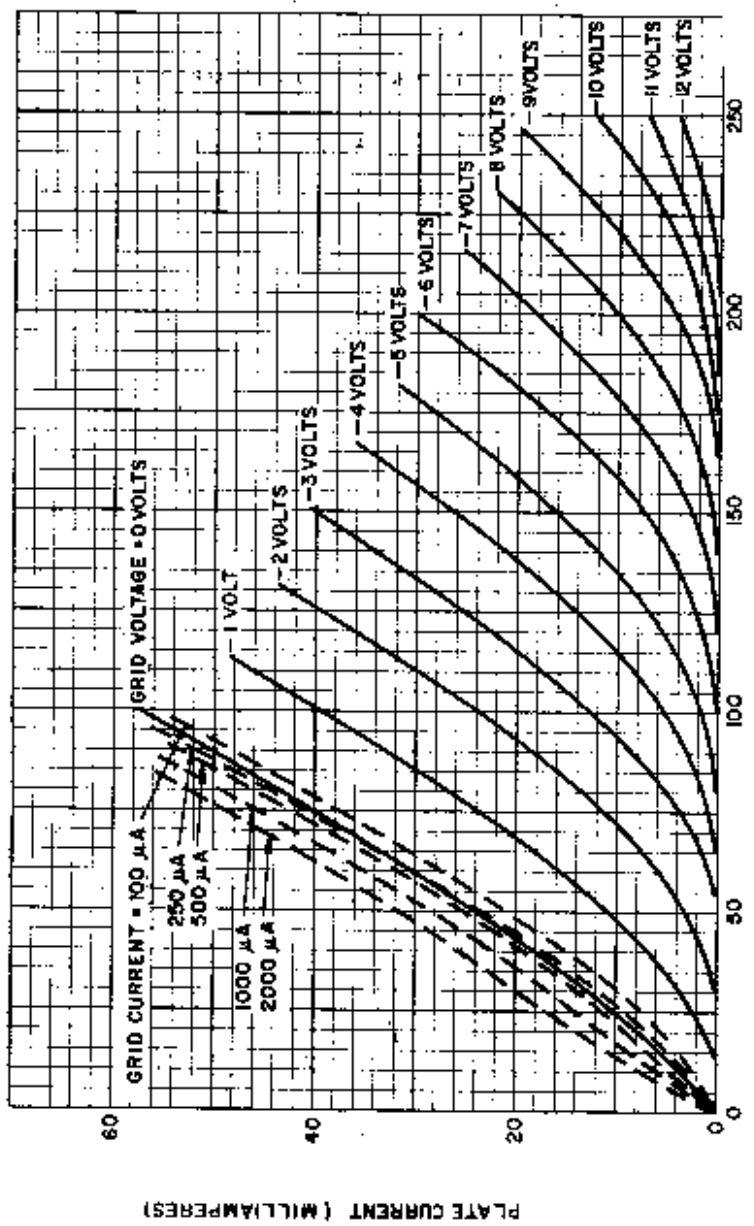
PLATE CHARACTERISTICS



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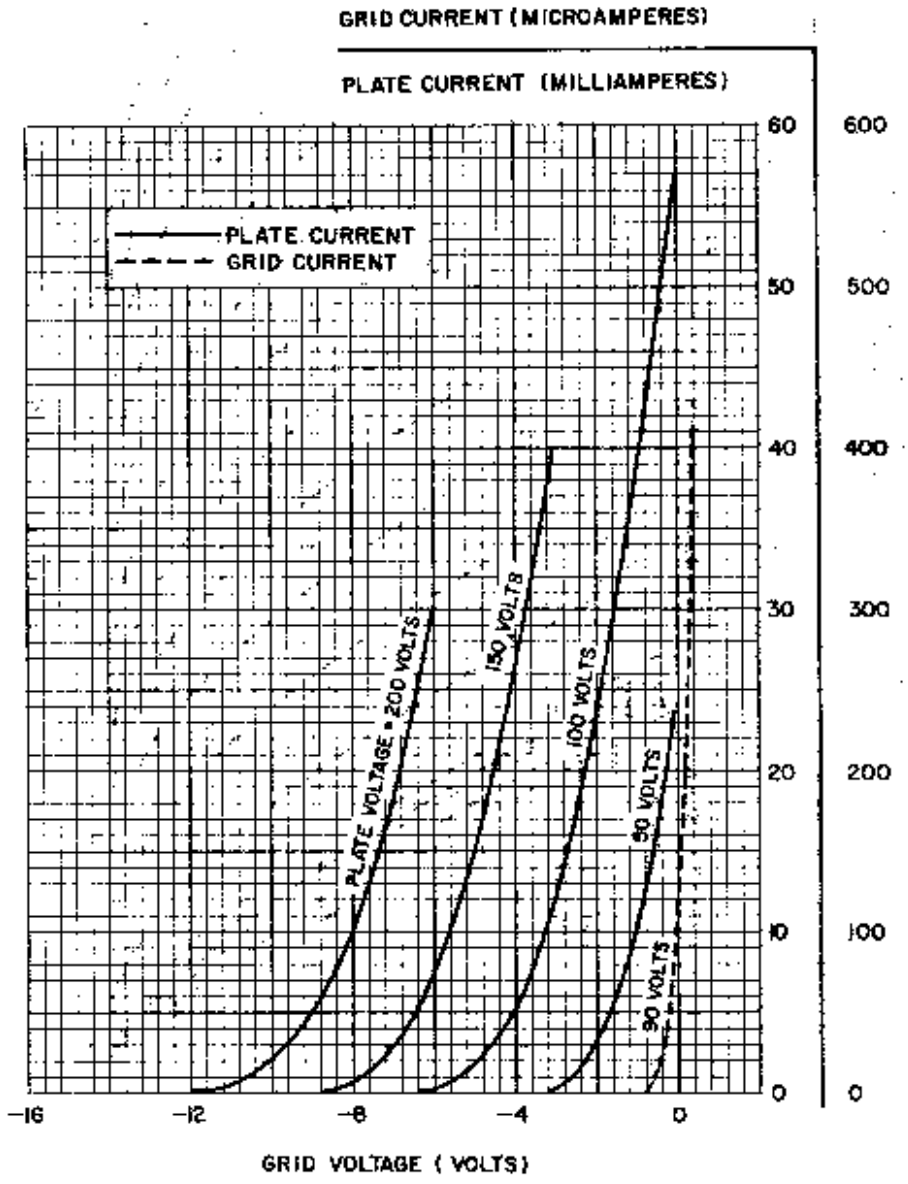
TRANSFER CHARACTERISTICS



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