



ELECTRONIC TUBE REFERENCE

57

Voltage Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Early triple-grid pentode designed for radio detector and high-gain voltage-amplifier service, with both pentode and triode-connected operating data.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6F	BASE PINS	6
NOMINAL HEATER	2.5 V / 1 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1700000 Ω
TRANSCONDUCTANCE	0.00151 S
AMPLIFICATION FACTOR	2500
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	100 V
Values transcribed from the approved datasheet; additional published data retained as parameters.	

Triple-grid amplifier pentode; French-language source translated to English. The non-English source wording has been rendered in English.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1932 Cunningham Radio Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1932 CUNNINGHAM RADIO TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	0.01 pF	Published direct interelectrode capacitance



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	—0.007 pF	PentodeConnection; Maximum
Input capacitance	5 pF	PentodeConnection
Output capacitance	6.5 pF	PentodeConnection
Grid-to-plate capacitance	2 pF	TriodeConnection
Input capacitance	3 pF	TriodeConnection
Output capacitance	10.5 pF	TriodeConnection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA; PentodeConnection
Screen voltage	100 V	ClassA; PentodeConnection
Grid bias	-3 V	ClassA; PentodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	2 mA	ClassA; PlateVoltage=100V
Screen current	0.8 mA	ClassA; PlateVoltage=100V
Plate voltage	250 V	ClassA; PentodeConnection
Screen voltage	100 V	ClassA; PentodeConnection; PlateVoltage=250V
Grid bias	-3 V	ClassA; PentodeConnection; PlateVoltage=250V
Plate current	2 mA	ClassA; PlateVoltage=250V
Screen current	0.5 mA	ClassA; PlateVoltage=250V
Grid bias	-8 V	ClassA; TriodeConnection
Plate current	6.5 mA	ClassA; TriodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1 MOhm	ClassA; PlateVoltage=100V
Transconductance	1185 uS	ClassA; PlateVoltage=100V
Plate resistance	1.5 MOhm	ClassA; PlateVoltage=250V
Transconductance	1225 uS	ClassA; PlateVoltage=250V
Plate resistance	10500 ohm	ClassA; TriodeConnection
Transconductance	1900 uS	ClassA; TriodeConnection


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

193X Cunningham

Published test conditions and operating points. Values on this page are preserved as reported by this source.

193X CUNNINGHAM

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	2.5 V	Published nominal
Heater/filament current	1 A	Published nominal
Transconductance	1250 uS	Published characteristic



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1940 RCA

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	BiasedDetector text	—



SOURCE OPERATING CONDITIONS

1946 Standard Telephone and Cables

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1946 STANDARD TELEPHONE AND CABLES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to grid	3.5 pF	Published direct interelectrode capacitance
Grid to cathode	8.5 pF	Published direct interelectrode capacitance
Heater/filament nominal current	4.5 A	Nominal published value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1950 SYLVANIA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	2.5 V	—
HeaterOrFilamentCurrent	1 A	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

195X General Electric Essential Characteristics

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA PentodeConnection
Screen-grid voltage	100 V	ClassA PentodeConnection
Grid voltage	-3 V	ClassA PentodeConnection
Plate current	2.3 mA	ClassA PentodeConnection
Screen-grid current	0.5 mA	ClassA PentodeConnection
Plate voltage	250 V	ClassA TriodeConnection
Grid voltage	-8 V	ClassA TriodeConnection
Plate current	6.5 mA	ClassA TriodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	10500 ohm	TriodeConnection



SOURCE DATA APPENDIX

1961 Tung Sol

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1961 TUNG SOL
Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	2.5 V	Nominal
Heater current	1 A	Nominal
Plate voltage	100 V	Published operating table; OperatingPoint1
Plate voltage	250 V	Published operating table; OperatingPoint2
Plate voltage	250 V	Published operating table; OperatingPoint3
Plate voltage	335 V	Published operating table; OperatingPoint4

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	2 mA	Published operating table; OperatingPoint1
Plate current	2 mA	Published operating table; OperatingPoint2
Plate current	3.7 mA	Published operating table; OperatingPoint3
Plate current	2.7 mA	Published operating table; OperatingPoint4
Transconductance	1185 uS	Published operating table; OperatingPoint1
Transconductance	12256 uS	Published operating table; OperatingPoint2
Transconductance	1510 uS	Published operating table; OperatingPoint3
Transconductance	1325 uS	Published operating table; OperatingPoint4