



ELECTRONIC TUBE REFERENCE

2A5

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Power/output pentode designed for Class-A, single-ended, or push-pull audio-frequency output amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6B	BASE PINS	6
NOMINAL HEATER	2.5 V / 1.75 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	80000 Ω
TRANSCONDUCTANCE	0.0026 S
AMPLIFICATION FACTOR	200
MAXIMUM PLATE VOLTAGE	375 V
MAXIMUM SCREEN VOLTAGE	285 V
MAXIMUM PLATE DISSIPATION	11 W
MAXIMUM SCREEN DISSIPATION	3.75 W
<i>Pentode-connection maxima; triode-connection operation is preserved in parameters.</i>	

Pentode power amplifier for receiver power-output stages; electrically identical to 6F6/42 types except for heater ratings.

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	315 V	Published datasheet rating
Maximum screen voltage	315 V	Published datasheet rating
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA
Control-grid bias	16.5 V	ClassA
Plate current	34 mA	ClassA
Screen current	6.5 mA	ClassA
Load resistance	7000 ohm	ClassA
Power output	3 W	ClassA
Triode-connected plate voltage	315 V	TriodeConnection ClassA
Triode-connected grid bias	20 V	TriodeConnection ClassA
Triode-connected load resistance	4000 ohm	TriodeConnection ClassA
Triode-connected power output	0.85 W	TriodeConnection ClassA
Push-pull pentode plate voltage	375 V	ClassAB PushPull TwoTubes
Push-pull pentode power output	19 W	ClassAB PushPull TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	80000 ohm	Published datasheet characteristic
Transconductance	2500 μS	Published datasheet characteristic

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	200	Published datasheet characteristic
Heater/filament voltage	2.5 V	Published heater/filament rating
Heater/filament current	1.75 A	Published heater/filament rating
Triode-connected plate resistance	2600 ohm	TriodeConnection
Triode-connected transconductance	2700 μ S	TriodeConnection


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1940 RCA

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1940 RCA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE (A. C.or D.C) ...t	2.5 V	HEATER VOLTAGE (A. C.or D.C) ...t 2.5 Volts
HEATER CURRENT ..ovnirunnniunnonennnnncoannss	1.75 A	HEATER CURRENT ..ovnirunnniunnonennnnncoannss 1.75 Amperes
The heater is designed to operate at	2.5 V	The heater is designed to operate at 2.5 volts. The transformer winding
E_c =	2.5 V	E_c =63 VOLTS E_c =2.5 VOLTS
(1,c2) MILLIAMPERES	1	(1,c2) MILLIAMPERES
PLATE AND SCREEN VOLTS	5232 V	PLATE AND SCREEN VOLTS 92Cc—5232


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	2.5 V	—
HeaterOrFilamentCurrent	1.75 A	—



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SOURCE OPERATING CONDITIONS

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1950 Sylvania

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension de chauffage (CA. ou CC) 2,5 volts	2.5 V	Tension de chauffage (CA. ou CC) 2,5 volts



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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195X General Electric Essential Characteristics

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	285 V	ClassA
Screen voltage	285 V	ClassA
Control-grid voltage	-20 V	ClassA
Plate current	38 mA	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen current	7 mA	ClassA
Load resistance	7000 Ω	ClassA
Power output	4.8 W	ClassA
Plate voltage	250 V	ClassA TriodeConnection
Control-grid voltage	-20 V	ClassA TriodeConnection
Plate current	31 mA	ClassA TriodeConnection
Load resistance	4000 Ω	ClassA TriodeConnection
Power output	0.85 W	ClassA TriodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	78000 Ω	ClassA
Transconductance	2500 μS	ClassA
Plate resistance	2600 Ω	ClassA TriodeConnection
Transconductance	2600 μS	ClassA TriodeConnection
Amplification factor	6.8	ClassA TriodeConnection


TUBE TINKER
ELECTRON TUBE DATABASE

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1961 Tung Sol

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1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA;SingleTube;PentodeConnection
Screen Voltage	250 V	ClassA;SingleTube;PentodeConnection
Load Resistance	7000 ohm	ClassA;SingleTube;PentodeConnection
Power Output	3.2 W	ClassA;SingleTube;PentodeConnection
Power Output	18.5 W	ClassAB;PushPull;TwoTubes;PentodeConnection
Power Output	13 W	ClassAB;PushPull;TwoTubes;TriodeConnection

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;SingleTube
Screen voltage	250 V	ClassA;SingleTube
Control grid voltage	-16.5 V	ClassA;SingleTube
Zero-signal plate current	34 mA	ClassA;SingleTube
Zero-signal screen current	6.5 mA	ClassA;SingleTube
Maximum-signal plate current	36 mA	ClassA;SingleTube
Maximum-signal screen current	10.5 mA	ClassA;SingleTube
Load resistance	7000 ohm	ClassA;SingleTube
Power output	3.2 W	ClassA;SingleTube
Total harmonic distortion	8 %	ClassA;SingleTube
Effective plate-to-plate load resistance	10000 ohm	PushPull;TwoTubes;ClassA
Power output	11 W	PushPull;TwoTubes;ClassA

TUBE TINKER

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