

ELECTRONIC TUBE REFERENCE

6F6G

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
PENTODE

Indirectly heated output power pentode designed for AC and automobile-radio audio service. Its glass construction provides conventional low-frequency power amplification for receiver output stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7S	BASE PINS	8
NOMINAL HEATER	6.3 V / 700 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7S - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – H	–	H – Heater	CONNECTED
PIN3 – P	A	P – Plate (Anode)	CONNECTED
PIN4 – G2	A	G2 – Screen Grid	CONNECTED
PIN5 – G1	A	G1 – Control Grid	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN8 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	80000 Ω
TRANSCONDUCTANCE	0.0025 S
MAXIMUM PLATE VOLTAGE	375 V
MAXIMUM SCREEN VOLTAGE	285 V
MAXIMUM PLATE DISSIPATION	11 W
MAXIMUM SCREEN DISSIPATION	3.75 W
<i>Glass-envelope power-amplifier pentode with Class-A output ratings.</i>	

Indirectly heated output power pentode for AC and car-radio audio service.

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 table
Plate Voltage	250 V	ClassA; Column1
Plate Voltage	316 V	ClassA; Column2
Plate Voltage	250 V	ClassA; Column3
§ Screen Voltage	250 V	ClassA; Column1
§ Screen Voltage	315 V	ClassA; Column2
Plate Voltage	375 V	ClassA; Column1
Plate Voltage	375 V	ClassA; Column2
Plate Voltage	350 V	ClassA; Column3
Plate Voltage	350 V	ClassA; Column4
Screen Voltage	250 V	ClassA; Column1
Screen Voltage	250 V	ClassA; Column2
No=Signal Plate Current	34 mA	ClassA; Column1
No=Signal Plate Current	54 mA	ClassA; Column2
No=Signal Plate Current	45 mA	ClassA; Column3
No=Signal Plate Current	50 mA	ClassA; Column4
No-Signal Screen Current	5 mA	ClassA; Column1
No-Signal Screen Current	8 mA	ClassA; Column2
Load Resistance(P to P)	10000 ohm	ClassA; Column1
Load Resistance(P to P)	10000 ohm	ClassA; Column2
Load Resistance(P to P)	6000 ohm	ClassA; Column3
Load Resistance(P to P)	10 ohm	ClassA; Column4
Power Output (approx,)	19 W	ClassA; Column1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output (approx,)	194 W	ClassA; Column2
Power Output (approx,)	18 W	ClassA; Column3
Power Output (approx,)	149 W	ClassA; Column4
With one	6 V	ClassA; Column1
With one	6 V	ClassA; Column2
Input transformer ratio, primary to	1	ClassA; Column1
Input transformer ratio, primary to	2	ClassA; Column2
Input transformer ratio, primary to	3.32	ClassA; Column3
AInput transformer ratio, primery to	1	ClassA; Column1
AInput transformer ratio, primery to	2	ClassA; Column2
AInput transformer ratio, primery to	2.5	ClassA; Column3
Input transformer ratio, primary to	1.67	ClassA; Column3
TInput transformer ratio, primary to	1	ClassA; Column1
TInput transformer ratio, primary to	2	ClassA; Column2
TInput transformer ratio, primary to	1.29	ClassA; Column3



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output maximum published	10.5 W	—



SOURCE OPERATING CONDITIONS

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1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio output	—



SOURCE OPERATING CONDITIONS

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195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	285 V	ClassA; SingleTube
Screen voltage	285 V	ClassA; SingleTube
Control-grid bias magnitude	20 V	ClassA; SingleTube
Plate current	38 mA	ClassA; SingleTube
Screen current	7 mA	ClassA; SingleTube

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	78000 ohm	ClassA; SingleTube
Transconductance	2550 uS	ClassA; SingleTube
Load resistance	7000 ohm	ClassA; SingleTube
Power output	4.8 W	ClassA; SingleTube
Plate voltage	250 V	ClassA; SingleTube
Screen voltage	250 V	ClassA; SingleTube
Control-grid bias magnitude	16.5 V	ClassA; SingleTube
Plate current	34 mA	ClassA; SingleTube
Screen current	6.5 mA	ClassA; SingleTube
Plate resistance	80000 ohm	ClassA; SingleTube
Transconductance	2500 uS	ClassA; SingleTube
Load resistance	7000 ohm	ClassA; SingleTube
Power output	3.2 W	ClassA; SingleTube



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;SingleEnded
Screen-grid voltage	250 V	ClassA;SingleEnded
Control-grid voltage	-16.5 V	ClassA;SingleEnded
Plate current	34 mA	ClassA;SingleEnded
Screen-grid current	6.5 mA	ClassA;SingleEnded
Load resistance	7000 Ohm	ClassA;SingleEnded
Output power	3.2 W	ClassA;SingleEnded
Plate voltage	315 V	ClassAB;PushPull;TwoTubes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid voltage	285 V	ClassAB;PushPull;TwoTubes
Plate-to-plate load resistance	10000 Ohm	ClassAB;PushPull;TwoTubes
Output power	11 W	ClassAB;PushPull;TwoTubes;FixedBias
Output power	10.5 W	ClassAB;PushPull;TwoTubes;CathodeBias

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	80000 Ohm	ClassA;SingleEnded
Transconductance	2500 uS	ClassA;SingleEnded

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output capacitance	6.5 pF	—
Grid-to-plate capacitance	0.5 pF	—

TUBE TINKER

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