

ELECTRONIC TUBE REFERENCE

6G6G

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Power pentode designed for audio-frequency power-amplifier service. Its output-stage characteristics provide low-frequency load drive in radio and general audio equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7S	BASE PINS	6
NOMINAL HEATER	6.3 V / 150 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	170000 Ω
TRANSCONDUCTANCE	0.0021 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	180 V
<i>Source-defined physical/function section.</i>	

Power pentode for audio-frequency power-amplifier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Ken Rad

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

1937 KEN RAD

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	180 V	Plate Voltage 135 180 Max. Volts
Screen Voltage	180 V	Screen Voltage 135 180 Max. Volts
Grid Voltage	-9 V	Grid Voltage -6.0° -9.0% Volts
Plate Resistance	175000 ohm	Plate Resistance 170,000 175,000 Ohms
Amplification Factor	400 ratio	Amplification Factor 360 400
Mutual Conductance	2300 µS	Mutual Conductance 2100 2300 Micromhos
Load Resistance	10000 ohm	Load Resistance 12,000 10,000 Ohms
Power Output	1.1 W	Power Output . 1.1 Watts



SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	180 V	Published datasheet rating
Maximum screen voltage	180 V	Published datasheet rating
Plate voltage	135 V	ClassA
Screen voltage	135 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen current	2 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	150 mA	Published heater rating



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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	180 V	ClassA; PentodeConnection
Screen voltage	180 V	ClassA; PentodeConnection
Control-grid bias magnitude	9 V	ClassA; PentodeConnection
Plate current	15 mA	ClassA; PentodeConnection
Screen current	2.5 mA	ClassA; PentodeConnection
Plate resistance	175000 ohm	ClassA; PentodeConnection
Transconductance	2300 uS	ClassA; PentodeConnection
Load resistance	10000 ohm	ClassA; PentodeConnection
Power output	1.1 W	ClassA; PentodeConnection
Plate voltage	180 V	ClassA; TriodeConnection; ScreenTiedToPlate
Control-grid bias magnitude	12 V	ClassA; TriodeConnection; ScreenTiedToPlate
Plate current	11 mA	ClassA; TriodeConnection; ScreenTiedToPlate
Plate resistance	4750 ohm	ClassA; TriodeConnection; ScreenTiedToPlate
Transconductance	2000 uS	ClassA; TriodeConnection; ScreenTiedToPlate
Amplification factor	9.5	ClassA; TriodeConnection; ScreenTiedToPlate

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Load resistance	12000 ohm	ClassA; TriodeConnection; ScreenTiedToPlate
Power output	0.25 W	ClassA; TriodeConnection; ScreenTiedToPlate



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1961 Tung Sol

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1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	150 mA	—
Plate voltage	180 V	Typical operating conditions
Plate current	1111.515 mA	Typical operating conditions

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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