



ELECTRONIC TUBE REFERENCE

7B5

Power - Pentode Single (NOT beam) (under 10W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Power/output pentode designed for low-frequency or audio-frequency output amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6AE	BASE PINS	8
NOMINAL HEATER	6.3 V / 400 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	90000 Ω
TRANSCONDUCTANCE	0.0023 S
MAXIMUM PLATE VOLTAGE	315 V
MAXIMUM SCREEN VOLTAGE	285 V
MAXIMUM PLATE DISSIPATION	8.5 W
MAXIMUM SCREEN DISSIPATION	2.8 W
MAXIMUM HEATER-CATHODE VOLTAGE	90 V
<i>Published promoted fields populated by semantic heading; identical repeated physical sections compressed.</i>	

A Lock-In power output pentode intended for audio power-amplifier service, with Class A and push-pull Class AB operating data.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	300 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Screen Voltage	250 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2200 μ S	Typical
Plate Resistance	68000 ohm	Typical



SOURCE OPERATING CONDITIONS

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1950 Sylvania

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1950 SYLVANIA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	7 V	Nominal
HeaterCurrentNominal	430 mA	Nominal
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA

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
Typical plate voltage	315 V	ClassA
Typical screen voltage	250 V	ClassA
Typical grid voltage	-21 V	ClassA
Typical plate current	25.5 mA	ClassA
Typical screen current	4 mA	ClassA
Load resistance	9000 Ohm	ClassA
Power output	4.5 W	ClassA
Typical plate voltage	250 V	ClassA
Typical screen voltage	250 V	ClassA
Typical grid voltage	-18 V	ClassA
Typical plate current	32 mA	ClassA
Typical screen current	5.5 mA	ClassA
Load resistance	7600 Ohm	ClassA
Power output	3.4 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	75000 Ohm	315VPlate
Transconductance	2100 uS	315VPlate
Plate resistance	68000 Ohm	250VPlate
Transconductance	2300 uS	250VPlate

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	4.5 W	ClassA1;PlateVoltage=315V
Total Harmonic Distortion	15 %	ClassA1;PlateVoltage=315V