



ELECTRONIC TUBE REFERENCE

6B8

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-PENTODE

Double-diode remote-cutoff pentode for detector, AVC, and gain-controlled receiver amplification. The paired diodes handle signal and control-voltage rectification while the pentode provides controlled RF or IF gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.001325 S
AMPLIFICATION FACTOR	800
MAXIMUM PLATE VOLTAGE	335 V
MAXIMUM SCREEN VOLTAGE	110 V
MAXIMUM CATHODE CURRENT	15 mA
Source-defined physical/function section.	

SECTION2 Diode	
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM CATHODE CURRENT	1 mA
Source-defined physical/function section.	

SECTION3 Diode

No fixed ratings recorded.

Source-defined physical/function section.

Duo-diode high-gain pentode combining two diode sections with a pentode amplifier.



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	250 V	Plate Voltage 250 Ka... Yolts
Screen Voltage	125 V	Screen Voltage 125 Max. Volts
Grid Voltage	-3 V	Grid Voltage -3 Volts
Plate Current	10 A	Plate Current 10.0 Milliamperes
Screen Current	2.3 mA	Screen Current 2.3 Milliamperes
Plate Resistance	0.6 Mohm	Plate Resistance 0.6 Approx. Megohm
Mutual Conductance	1325 μ S	Mutual Conductance 1325 Micromhos
Grid Voltage	-21 V	*Grid Voltage -21 Approx. Volts



SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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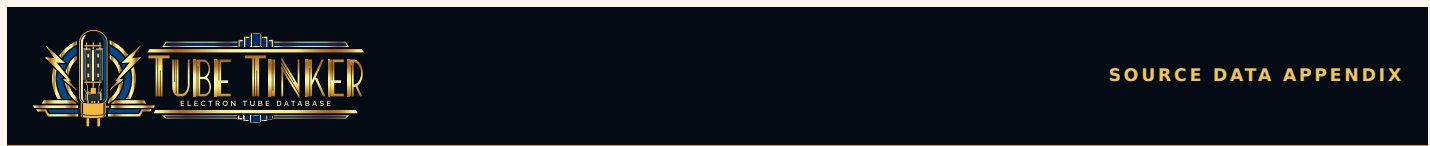
1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hax, Screen Voltage	125 V	Published table
Plate Voltage	250 V	ClassA
grid Bias	-3 V	ClassA
Amplification Factor	800	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	0.6 ohm	ClassA
Plate Current	10 mA	ClassA
Screen Current	2.3 mA	ClassA
Grid Bias for Cathode Current Cutoff =	21 V	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	0.008	Published table
Input	6 pF	Published table
output	9 pF	Published table



SOURCE OPERATING CONDITIONS

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1940 RCA

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1940 RCA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	300 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Cathode Current	15 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1325 μ S	Typical
Amplification Factor	800	Typical
Plate Resistance	600000 ohm	Typical

1940 RCA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	300 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Cathode Current	1 mA	—



SOURCE DATA APPENDIX

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

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension chauffage CA, ou CC, ... 6,3 6,3 volts	6.3 V	Tension chauffage CA, ou CC, ... 6,3 6,3 volts
Courant chauffage 0,3 0,3 ampère	300 mA	Courant chauffage 0,3 0,3 ampère
Tension chauffage CA. ou CC. 0 ... 6,3 volts	6.3 V	Tension chauffage CA. ou CC. 0 ... 6,3 volts
Courant chauffage 0,3 volt	0.3 V	Courant chauffage 0,3 volt
Tension de grille 0 volt min,	0 V	Tension de grille 0 volt min,
Pour une tension continue plaque de 10 volts le courant dépassera	10 V	Pour une tension continue plaque de 10 volts le courant dépassera
Tension de chauffage 6,3 volts —	6.3 V	Tension de chauffage 6,3 volts —
Courant de chauffage 0,3 ampère —	300 mA	Courant de chauffage 0,3 ampère —
Courant écran ... 2,3 ma. —	2.3 mA	Courant écran ... 2,3 ma. —

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension plaque ... 300 volts max.	300 V	Tension plaque ... 300 volts max.
Source tension gnlle ecran 300 volts max.	300 V	Source tension gnlle ecran 300 volts max.
Tension grille écran i we o aes 125 volts max.	125 V	Tension grille écran i we o aes 125 volts max.
Dissipation plaque el 2,25 watts max,	2.25 W	Dissipation plaque el 2,25 watts max,
Dissipation écran 0,3 watt max.	0.3 W	Dissipation écran 0,3 watt max.
Tension plaque a0 .. 250 volts max. —	250 V	Tension plaque a0 .. 250 volts max. —


SOURCE DATA APPENDIX

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	250 V	ClassA
Screen-grid voltage	125 V	ClassA
Grid voltage	-3 V	ClassA
Plate current	10 mA	ClassA
Screen-grid current	2.3 mA	ClassA


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	6.3 V	—
Heater current	300 mA	—
Plate current	10 mA	Typical operating conditions

1961 TUNG SOL

Section 2 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	300 mA	—

1961 TUNG SOL

Section 3 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	300 mA	—

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