

ELECTRONIC TUBE REFERENCE

55

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS
CONSTRUCTION
DIODE-DIODE-TRIODE

Early double-diode low-mu triode for detector, AVC, and audio amplifier service. The diode elements provide signal and control-voltage rectification while the relatively low-resistance triode supplies useful current drive after detection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	2.5 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM CATHODE CURRENT	1 mA
Representative row for two identical diode sections sharing the cathode with the triode.	

SECTION2 Diode	
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM CATHODE CURRENT	1 mA
Second physical diode section; identical detector diode added to align physical rows with SectionCount.	

SECTION3 Triode	
PLATE RESISTANCE	7500 Ω
TRANSCONDUCTANCE	0.0011 S
AMPLIFICATION FACTOR	8.3
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	10 mA
<i>Triode section; 250-V operating column used for promoted characteristics.</i>	

Double-diode triode for detector and amplifier 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 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Number of identical diode units	2 count	IdenticalSectionsCompressed

1937 RAYTHEON RADIO RECEIVING TUBES

Section 3 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.7 pF	TriodeSection
Input capacitance	2 pF	TriodeSection
Output capacitance	3.5 pF	TriodeSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	135 V	ClassA
Grid bias	-10.5 V	ClassA; PlateVoltage=135V
Plate current	3.7 mA	ClassA; PlateVoltage=135V
Power output	75 mW	ClassA; PlateVoltage=135V
Plate voltage	180 V	ClassA
Grid bias	-13.5 V	ClassA; PlateVoltage=180V
Plate current	6 mA	ClassA; PlateVoltage=180V
Power output	160 mW	ClassA; PlateVoltage=180V
Plate voltage	250 V	ClassA
Grid bias	-20 V	ClassA; PlateVoltage=250V
Plate current	8 mA	ClassA; PlateVoltage=250V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output	300 mW	ClassA; PlateVoltage=250V

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	11000 ohm	ClassA; PlateVoltage=135V
Transconductance	760 uS	ClassA; PlateVoltage=135V
Plate resistance	8500 ohm	ClassA; PlateVoltage=180V
Transconductance	975 uS	ClassA; PlateVoltage=180V
Plate resistance	7500 ohm	ClassA; PlateVoltage=250V
Transconductance	1100 uS	ClassA; PlateVoltage=250V



SOURCE OPERATING CONDITIONS

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1940 RCA

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

1940 RCA

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	2.5 V	Nominal
HeaterCurrentNominal	1 A	Nominal
Maximum Plate Voltage	250 V	—
Maximum Cathode Current	1 mA	—

1940 RCA

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	2.5 V	Nominal
HeaterCurrentNominal	1 A	Nominal
Maximum Plate Voltage	250 V	—
Maximum Cathode Current	10 mA	—

Characteristic		
Parameter	Published Value	Condition / Note
Transconductance	1040 μS	Typical
Amplification Factor	8.3	Typical
Plate Resistance	8000 ohm	Typical



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Diode

Other		
Parameter	Published Value	Condition / Note
Heater voltage	2.5 V	Nominal
Heater current	1 A	Nominal

Characteristic		
Parameter	Published Value	Condition / Note
Plate current	3.7 mA	Published operating table; OperatingPoint1
Plate current	6 mA	Published operating table; OperatingPoint2
Plate current	8 mA	Published operating table; OperatingPoint3
Transconductance	750 μS	Published operating table; OperatingPoint1
Transconductance	975 μS	Published operating table; OperatingPoint2
Transconductance	1100 μS	Published operating table; OperatingPoint3
Plate resistance	11000 ohm	Published operating table; OperatingPoint1
Plate resistance	8500 ohm	Published operating table; OperatingPoint2
Plate resistance	7500 ohm	Published operating table; OperatingPoint3

1961 TUNG SOL

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	2.5 V	Nominal
Heater current	1 A	Nominal

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	3.7 mA	Published operating table; OperatingPoint1
Plate current	6 mA	Published operating table; OperatingPoint2
Plate current	8 mA	Published operating table; OperatingPoint3
Transconductance	750 uS	Published operating table; OperatingPoint1
Transconductance	975 uS	Published operating table; OperatingPoint2
Transconductance	1100 uS	Published operating table; OperatingPoint3
Plate resistance	11000 ohm	Published operating table; OperatingPoint1
Plate resistance	8500 ohm	Published operating table; OperatingPoint2
Plate resistance	7500 ohm	Published operating table; OperatingPoint3

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