



ELECTRONIC TUBE REFERENCE

6Q7

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

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

Double-diode high-mu triode for detector, AVC, and audio voltage-amplifier service. Paired diodes provide signal and control rectification while the triode supplies substantial first-audio voltage gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8	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 Diode

No fixed ratings recorded.

Published ratings and characteristics promoted where clearly stated; identical repeated diode/triode sections compressed where applicable.

SECTION2 Diode

No fixed ratings recorded.

Published source values promoted where applicable.

SECTION3 Triode	
PLATE RESISTANCE	68000 Ω
TRANSCONDUCTANCE	0.0012 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	250 V
<i>Published ratings and characteristics promoted where clearly stated; identical repeated diode/triode sections compressed where applicable.</i>	

High-mu double-diode triode combining detector/AVC diodes with a triode amplifier section.

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 3 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.5 pF	Section1
Input capacitance	5.5 pF	Section1
Output capacitance	5 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA
Grid bias	-1.5 V	ClassA
Plate current	0.35 mA	ClassA
Plate voltage	250 V	ClassA
Grid bias	-3 V	ClassA
Plate current	1.1 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	87500 Ω	100VPlate
Transconductance	800 μ S	100VPlate
Amplification factor	70	Section1
Plate resistance	58000 Ω	250VPlate
Transconductance	1200 μ S	250VPlate

1940 RCA

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

1940 RCA

Section 1 · Diode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	300 mA	Published nominal value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.5 pF	Triode unit
Grid-to-cathode capacitance	5.5 pF	Triode unit
Plate-to-cathode capacitance	5 pF	Triode unit

1940 RCA

Section 3 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	300 mA	Published nominal value
Transconductance	1200 μS	Published operating characteristic
Amplification factor	70	Published operating characteristic



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SOURCE DATA APPENDIX

1950 Sylvania

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

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate current	1.1 mA	ClassA



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	6.3 V	—
Heater current	300 mA	—
Plate voltage	300 V	Typical operating conditions
Plate current	0.81.0 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	—
Plate voltage	300 V	Typical operating conditions
Plate current	0.81.0 mA	Typical operating conditions

1961 TUNG SOL

Section 3 · Triode

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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	300 V	Typical operating conditions
Plate current	0.81.0 mA	Typical operating conditions

TUBE TINKER

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and their source documents.

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