

ELECTRONIC TUBE REFERENCE

6R7

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

CONSOLIDATED TECHNICAL DATA

3 SECTIONS
CONSTRUCTION
DIODE-DIODE-TRIODE

Double-diode low-mu triode combining detector and AVC functions with a comparatively strong current-driving amplifier. Paired diodes provide rectification while the low-resistance triode favors current drive.

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.
Source-derived section; promoted values populated where applicable.

SECTION2 Diode
No fixed ratings recorded.
Source-derived section; promoted values populated where applicable.

SECTION3 Triode	
PLATE RESISTANCE	8500 Ω
TRANSCONDUCTANCE	0.0019 S
AMPLIFICATION FACTOR	16
MAXIMUM PLATE VOLTAGE	250 V
<i>Source-derived section; promoted values populated where applicable.</i>	

Indirectly heated double-diode medium-mu triode for diode detection and triode amplification.

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	2.5 pF	Section1
Input capacitance	5.5 pF	Section1
Output capacitance	4 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Grid bias	-9 V	ClassA
Plate current	9.5 mA	ClassA
Load resistance	10000 Ω	ClassA
Power output	280 mW	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	8500 Ω	Section1
Transconductance	1900 μS	Section1
Amplification factor	16	Section1

1940 RCA

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

1940 RCA
Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
t 316 MAX. as a combined detector, amplifier,	316	t 316 MAX. as a combined detector, amplifier,
HeaTeR VOLTAGE (A. C.or D.C).v.oviiaint	6.3 V	HeaTeR VOLTAGE (A. C.or D.C).v.oviiaint. 6.3 Volts
HEATER CURRENT ..tivitynnnnnnnenannancenennes	300 mA	HEATER CURRENT ..tivitynnnnnnnenannancenennes 0.3 Ampere
PLATE VOLTAGE .. .iviiinnrrnrnrnenruasnncessnaas 250 max. Volts	250 V	PLATE VOLTAGE .. .iviiinnrrnrnrnenruasnncessnaas 250 max. Volts
GRID VOLTAGE i evvevrvnanenosenosanarnenenens	-9 V	GRID VOLTAGE i evvevrvnanenosenosanarnenenens -9 Volts
AMPLIFICATION PACTOR ccccvnnnn	16	AMPLIFICATION PACTOR ccccvnnnn 16
PLATE CURRENT «.vttvinrrnnnnnnnnannncneanas	9.5 mA	PLATE CURRENT «.vttvinrrnnnnnnnnannncneanas 9.5 Milliamperes
UnNDISTORTED POWER OUTPUT.....cvvvvnnnn	280 W	UnNDISTORTED POWER OUTPUT.....cvvvvnnnn. 280 Milliwatts
As a transformer-coupled amplifier, the triode unit of the 6R7 may be	6	As a transformer-coupled amplifier, the triode unit of the 6R7 may be

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID-PLATE CAPACITANCE covevnannnnnnns	2.5 pF	GRID-PLATE CAPACITANCE covevnannnnnnns 2.5 puf
GRID-CATHODE CAPACITANCE otveeunannncesens	5.5 pF	GRID-CATHODE CAPACITANCE otveeunannncesens 5.5 puf
PLATE RESISTANCE iiiiiiincecnennnncnarenns	8500 ohm	PLATE RESISTANCE iiiiiiincecnennnncnarenns 8500 Ohms
TRANSCONDUCTANCE .. tvvervennnneeansnnasnns	1900	TRANSCONDUCTANCE .. tvvervennnneeansnnasnns 1900 Micramhos

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LOAD RESISTANCE ivvrinennennecosncasonns	10000 ohm	LOAD RESISTANCE ivvrinennennecosncasonns 10000 Ohms



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 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate current	9.5 mA	—



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	6.3 V	—
Heater current	300 mA	—
Plate voltage	260 V	Typical operating conditions
Plate current	9.5 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	260 V	Typical operating conditions
Plate current	9.5 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	—
Plate voltage	260 V	Typical operating conditions
Plate current	9.5 mA	Typical operating conditions

TUBE TINKER

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and their source documents.

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