

ELECTRONIC TUBE REFERENCE

2B7

Voltage Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-PENTODE

Double-diode pentode combining detector, AVC, and voltage-amplifier functions in early AC receivers. Two diodes provide signal and control rectification while the pentode supplies subsequent amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7D	BASE PINS	7
NOMINAL HEATER	2.5 V / 800 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

7D - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – H	–	H – Heater	CONNECTED
PIN3 – 2P	B	P – Plate (Anode)	CONNECTED
PIN4 – 2K	B	K – Cathode	CONNECTED
PIN5 – 1P	A	P – Plate (Anode)	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – 1K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Diode
No fixed ratings recorded.
Representative row for two diode sections sharing the common cathode.

SECTION2 Diode
<i>No fixed ratings recorded.</i>
<i>Physical second diode section added during approved section-structure reconciliation.</i>

SECTION3 Pentode	
PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.001125 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	2.25 W
MAXIMUM SCREEN DISSIPATION	0.3 W
Promoted from the printed maximum-rating/characteristic columns; additional operating-point and capacitance data are retained in TUBE_SECTION_PARAMETER.	

Duplex-diode semiremote-cutoff pentode combining detector diodes with a variable-mu pentode amplifier.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 3 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3.5 pF	Section1
Output capacitance	9.5 pF	Section1
Grid-to-plate capacitance	0.007 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen voltage	125 V	ClassA
Control-grid voltage	-3 V	ClassA
Plate current	9 mA	ClassA
Screen current	2.3 mA	ClassA
Screen voltage	100 V	ClassA
Plate current	6 mA	ClassA
Screen current	1.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	600000 Ω	ClassA
Transconductance	1125 μS	ClassA
Plate resistance	800000 Ω	ClassA
Transconductance	1000 μS	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
MinimumDiodeCurrentPerPlate	0.8 mA	40V DC applied

1961 TUNG SOL

Section 3 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen Supply Voltage Maximum	300 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	3.5 pF	—
Output Capacitance	9.5 pF	—