



ELECTRONIC TUBE REFERENCE

1F7G

Voltage Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-PENTODE

Battery double-diode pentode for detector, AVC, and voltage-amplifier service. Two diode sections recover the signal and develop control voltage while the high-resistance pentode supplies subsequent amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	2 V / 60 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode

No fixed ratings recorded.

Physical section represented from published tube construction and section-specific data.

SECTION2 Diode

No fixed ratings recorded.

Physical section represented from published tube construction and section-specific data.

SECTION3 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.00065 S
AMPLIFICATION FACTOR	650
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	67.5 V
<i>Electrical section reconstructed from published ratings/characteristics; promoted transconductance normalized to A/V.</i>	

Octal-base co-designation of the 1F6 dual-diode pentode for detection, AVC and RF/IF or AF 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.

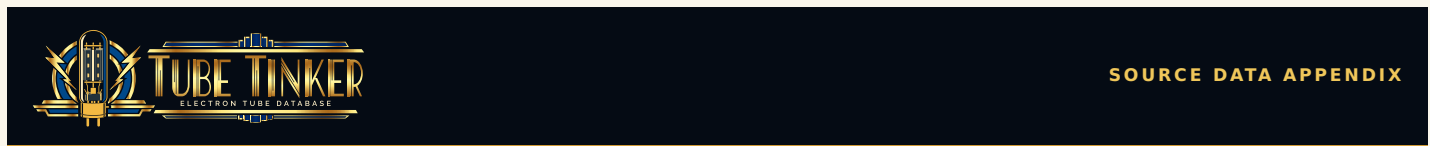
1937 RAYTHEON RADIO RECEIVING TUBES

Section 3 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
SMALL Maximum Plate Voltage	180 V	Published ratings
OCTAL BASE Maximum Screen Voltage	67.5 V	Published ratings
Plate Voltage	180 V	ClassA
Screen Voltage	67.5 V	ClassA
Grid Bias «	1 V	ClassA; Column1
Grid Bias «	5 V	ClassA; Column2
Amplification Factor (approximate)	650	ClassA
Transconductance	650 uS	ClassA
Plate Current	2 mA	ClassA
Screen Current	0.6 mA	ClassA
Signal Peak Voltage	0.64	ClassA; Column1
Signal Peak Voltage	0.63	ClassA; Column2
Signal Peak Voltage	0.62	ClassA; Column3
No-Signal Plate Current	0.42 mA	ClassA; Column1
No-Signal Plate Current	0.42 mA	ClassA; Column2
No-Signal Plate Current	0.42 mA	ClassA; Column3
Max-Signal Plate Current	0.34 mA	ClassA; Column1
Max-Signal Plate Current	0.34 mA	ClassA; Column2
Max-Signal Plate Current	0.34 mA	ClassA; Column3
Total Harmonic Distortion	5 %	ClassA; Column1
Total Harmonic Distortion	5 %	ClassA; Column2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Total Harmonic Distortion	5 %	ClassA; Column3
Total Harmonic Distortion	5 %	ClassA; Column4
Total Harmonic Distortion	5 %	ClassA; Column5
Total Harmonic Distortion	5 %	ClassA; Column6

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate {with tubs shileld	0.007	Published capacitance
Input	4 pF	Published capacitance
Output	9	Published capacitance



SOURCE OPERATING CONDITIONS

1950 Sylvania

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

1950 SYLVANIA

Section 3 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	180 V	Pentode; RF/IF
Screen Voltage	67.5 V	Pentode; RF/IF
Plate Current	2.2 mA	Pentode; RF/IF

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-Plate Capacitance	0.007 pF	Pentode