

1F6

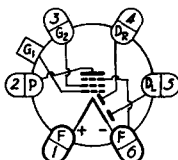
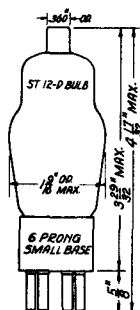
RAYTHEON

1F6

DUO-DIODE PENTODE
DETECTOR AMPLIFIER

Filament Type

Glass Bulb



BOTTOM VIEW OF SOCKET

The 1F6 is a duo-diode pentode type amplifier tube designed for service as a combined diode detector, AVC rectifier, and high or audio frequency amplifier in battery operated receivers. The ratings and electrical characteristics are identical with those of the type 1F7G.

RATINGS

Filament Voltage	2.0 d-c volts
Filament Current	0.060 amp
Max. Plate Voltage	180 volts
Max. Screen Voltage	67.5 volts

DIRECT INTERELECTRODE CAPACITANCES - PENTODE SECTION

Grid to Plate	0.007 max.* μ f
Input	4 μ f
Output	9 μ f

AMPLIFIER - CLASS A - PENTODE SECTION

Plate Voltage	180	volts
Screen Voltage	67.5	volts
Grid Bias	-1.5	volts
Amplification Factor (approximate)	650	
Plate Resistance (approximate)	1	megohm
Transconductance	650	μ mhos
Plate Current	2	ma
Screen Current	0.6	ma
Transconductance at -12 volts bias	15	μ mhos

AMPLIFIER - CLASS A (Resistance Coupled)-PENTODE SECTION

Plate Supply Voltage	135	135	135	volts
Screen Supply Voltage	135	135	135	volts
Grid Bias†	-1.0	-1.5	-2.0	volts
Plate Resistor	0.25	0.25	0.25	megohm
Screen Resistor	1	0.9	0.8	megohm
Signal Peak Voltage	0.64	0.63	0.62	volts
No-Signal Plate Current	0.42	0.42	0.42	ma
Max.-Signal Plate Current	0.34	0.34	0.34	ma
Grid Resistor‡	1 0.5	1 0.5	1 0.5	megohm
Output Peak Voltage‡	30.8 28	29.4 26.6	28 25.2	volts
Total Harmonic Distortion	5 5	5 5	5 5	percent
Voltage Amplification	48 43	47 42	46 41	

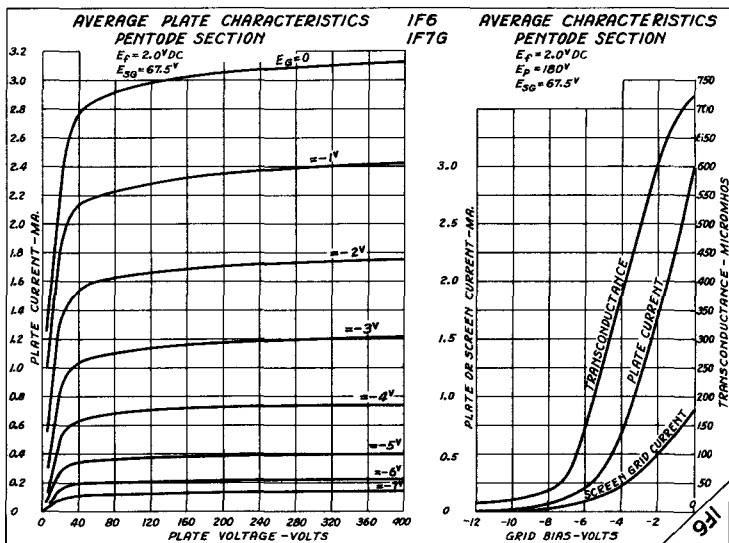
DIODE SECTION

The two diodes are located at the negative end of the filament. They are independent of each other and of the pentode section except for the common filament. The diodes may be used as a half wave or as a full wave rectifier or one diode may be used as a half wave rectifier for detection, and the other diode used as a rectifier to obtain AVC voltage.

*With tube shield.

†If a grid resistor is used, its value should not exceed 1 megohm.

‡For following tube.



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