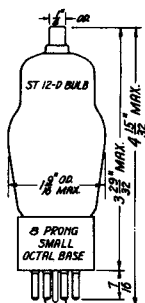


DUO-DIODE PENTODE
DETECTOR AMPLIFIER

Filament Type Glass Bulb



The 1F7G 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 1F6.

RATINGS

Filament Voltage	
Filament Current	
Maximum Plate Voltage	
Maximum Screen Voltage	

DIRECT INTERELECTRODE CAPACITANCES-PENTODE SECTION

Grid to Plate (with tube shield)	0.007 max.	μmf
Input	4.0	μmf
Output	9	μmf

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	μmhos
Plate Current	2	ma
Screen Current	0.6	ma
Transconductance at -12 volts bias	15	μmhos

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	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	0.5	1.0	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	percent	
Voltage Amplification	48	43	47	42	46	41	

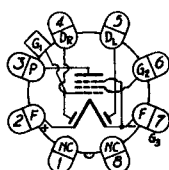
DIODE SECTION

The two diode units are independent of each other and of the triode 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 delayed AVC voltage.

If only one diode plate is used as an audio rectifier, D_1 on pin 5 should be used because D_1 is near the negative end of the filament and current will flow to this plate with zero signal when returned to the negative filament.

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

‡For following tube.



BOTTOM VIEW OF SOCKET

2.0 d-c	volts
0.060	amp
180	volts
67.5	volts

