

# 6F6 6F6-G 6F6-GT

## POWER PENTODE

Metal type 6F6 and glass octal types 6F6-G and 6F6-GT used in the audio output stage of ac receivers. Tubes are capable of large power output with relatively small input voltage.



Outlines 6, 42 and 26, respectively, **OUTLINES SECTION**. Type 6F6-GT may be supplied with pin No.1 omitted. Tubes require octal socket and may be mounted in any position. It is especially important that these tubes, like other power-handling tubes, be adequately ventilated. Types 6F6-G and 6F6-GT are used principally for renewal purposes.

HEATER VOLTAGE (AC/DC).....	6.3	volts
HEATER CURRENT.....	0.7	ampere

### CLASS A<sub>1</sub> AMPLIFIER

**Maximum Ratings:**

	<i>Pentode Connection</i>	<i>Triode Connection*</i>	
PLATE VOLTAGE.....	375 max	350 max	volts
GRID-NO.2 (SCREEN-GRID) VOLTAGE.....	285 max	-	volts
PLATE DISSIPATION.....	11 max	10 max	watts
GRID-NO.2 INPUT.....	3.75 max	-	watts
<b>PEAK HEATER-CATHODE VOLTAGE:</b>			
Heater negative with respect to cathode.....	90 max	90 max	volts
Heater positive with respect to cathode.....	90 max	90 max	volts

**Typical Operation:**

	<i>Pentode Connection</i>	<i>Triode Connection*</i>	
Plate Voltage.....	250	285	250 volts
Grid-No.2 Voltage.....	250	285	-
Grid-No.1 (Control-Grid) Voltage.....	-16.5	-20	-20 volts
Peak AF Grid-No.1 Voltage.....	16.5	20	20 volts
Zero-Signal Plate Current.....	34	38	31 ma
Maximum-Signal Plate Current.....	36	40	34 ma
Zero-Signal Grid-No.2 Current.....	6.5	7	-
Maximum-Signal Grid-No.2 Current.....	10.5	13	-
Amplification Factor.....	-	-	6.8
Plate Resistance (Approx.).....	80000	78000	2600 ohms
Transconductance.....	2500	2550	2600 μmhos
Load Resistance.....	7000	7000	4000 ohms
Total Harmonic Distortion.....	8	9	6.5 per cent
Maximum-Signal Power Output.....	3.2	4.8	0.85 watts

### PUSH-PULL CLASS A<sub>1</sub> AMPLIFIER

**Maximum Ratings:**

(Same as for class A<sub>1</sub> amplifier)

**Typical Operation (Values are for two tubes):**

Plate Voltage.....	315		volts
Grid-No.2 Voltage.....	285		volts
Grid-No.1 (Control-Grid) Voltage.....	-24		volts
Peak AF Grid-No.1-to-Grid-No.1 Voltage.....	48		volts
Zero-Signal Plate Current.....	62		ma
Maximum-Signal Plate Current.....	80		ma
Zero-Signal Grid-No.2 Current.....	12		ma
Maximum-Signal Grid-No.2 Current.....	19.5		ma
Effective Load Resistance (Plate-to-plate).....	10000		ohms
Total Harmonic Distortion.....	4		per cent
Maximum-Signal Power Output.....	11		watts

**Maximum Circuit Values:**

Grid-No.1 Circuit Resistance:		
For fixed-bias operation.....	0.1 max	megohm
For cathode-bias operation.....	0.5 max	megohm

\* Grid No.2 connected to plate.