6BY11

AUDIO OUTPUT AMPLIFIER
FM DETECTOR

Power Pentode and
Dual-Control Pentode

Construction...........Compactron T-9
Base .................E12-70
Basing ...............12EZ
Outline ...............5-59
Maximum Diameter ....1.188 In.
Maximum Seated Height ...2.000 In.
Maximum Overall Height ...2.250 In.

ELECTRICAL DATA
HEATER OPERATION
Heater Voltage ..........6.3 Volts
Heater Current ..........1200 Ma

Maximum Heater-Cathode Voltage
Heater Negative with Respect to Cathode
Total DC and Peak .......200 Volts
Heater Positive with Respect to Cathode
DC ......................100 Volts
Total DC and Peak .......200 Volts

DIRECT INTERELECTRODE CAPACITANCES

Section No. 1
Grid to Plate ..........0.28 pf
Input: g to (h + 1k + 1g2 + 1g3 + 1S) ..........12.0 pf
Output: p to (h + 1k + 1g2 + 1g3 + 1S) ..........7.0 pf

Section No. 2
Grid No. 1 to Plate (Max.) ..........0.40 pf
Grid No. 3 to Plate ..........3.2 pf
Grid No. 1 to (h + 2k + 2g2 + 2g3 + 1S) ..........7.0 pf
Grid No. 3 to (h + 2k + 2g2 + 2g3 + 2p + 1S) ..........8.0 pf
Grid No. 1 to Grid No. 3 ..........0.15 pf
Plate No. 1 to Plate No. 2 ..........0.18 pf

RATINGS (Design Maximum Rating System)

Section No. 1
Plate Voltage ..........200 Volts
Screen Voltage ..........150 Volts
Plate Dissipation ..........10 Watts
Screen Dissipation ..........1.8 Watts
DC Cathode Current ..........65 Ma
Grid No. 1 Circuit Resistance ..........1.0 Megohms
Cathode Bias

Section No. 2
Plate Voltage ..........300 Volts
Suppressor Voltage ..........25 Volts
Screen Supply Voltage ..........300 Volts
Positive DC Grid Voltage ..........9 Volt
Plate Dissipation ..........1.7 Watts
Screen Dissipation ..........1.0 Watts

AVERAGE CHARACTERISTICS

Section No. 1, Class A1 Amplifier
Plate Voltage ..........170 Volts
Screen Voltage ..........140 Volts
Grid No. 1 Voltage ..........-3.0 Volts
Peak AF Grid Voltage ..........15 Volts
Plate Resistance (Approx.) ..........33,000 Ohms
Transconductance ..........4900 µmhos
Zero Signal Plate Current ..........74 Ma
Maximum Signal Plate Current ..........76 Ma
Zero Signal Screen Current ..........3.9 Ma
Maximum Signal Screen Current ..........8.3 Ma
Load Resistance ..........2500 Ohms
Total Harmonic Distortion (Approx.) ..........10 Percent
Maximum Signal Power Output ..........4.0 Watts

Section No. 2
Plate Voltage ..........150 Volts
Suppressor Voltage ..........0 Volt
Screen Voltage ............100 Volts
Cathode Resistor ..........180 Ohms
Plate Resistance (Approx.) ..........110,000 Ohms
Transconductance (G1) ..........2500 µmhos
Transconductance (G3) ..........850 µmhos
Plate Current ..........1.3 Ma
Screen Current ..........2.1 Ma
E11 for lb = 20 µa ..........-4.0 Volts
E13 for lb = 50 µa ..........-3.0 Volts

Receivng Tubes