**GENERAL DESCRIPTION**

Application: The Hytron 6F5GT is a cathode type high-mu triode designed primarily for service in high gain resistance coupled circuits.

The Hytron 6F5GT is a glass tube equipped with a small octal base and may be used interchangeably with the Hytron 6F50 glass tube where conditions permit larger size.

Physical Characteristics: Bulb T-9C

**RATING AND CHARACTERISTICS**

Heater:
- Voltage: 6.5 Volts AC or DC
- Current: 0.3 Ampere

Note: Voltage between heater and cathode should be kept at a minimum if direct connection is not possible.

**AMPLIFIER OPERATION (CLASS A RESISTANCE COUPLED)**

- Plate Supply Voltage: 250 Volts
- Grid Voltage: -1.5 Volts
- Plate Current: 0.5 to 0.4 Milliamperes
- Plate Resistor: 0.25 to 1.0 Megohms
- Grid Resistor of Following Tube: 0.25 to 1.0 Megohms
- Output Voltage (5% 2nd Harmonic): 11 to 20
- Voltage Amplification: 14.5 to 25.5 RMS Volts
- Effective plate voltage will be this value minus the voltage drop in the plate resistor. Voltage at plate should not exceed 250 volts.

**AMPLIFIER OPERATION (CLASS A TRANSFORMER COUPLED)**

- Plate Voltage: 250 Volts Max.
- Grid Voltage: 0.2 Volts
- Plate Current: 0.8 Milliamperes
- Plate Resistance: 24,000 Ohms
- Amplification Factor: 100
- Mutual Conductance: 1,500 Microhenries

**Direct Inter-electrode Capacitances:**
- Grid No. 1 to Plate: 2.0 pF
- Grid No. 1 to cathode: 6.0 pF
- Plate to cathode: 19.0 pF

Notes: For characteristic curves refer to the type GF50.
MECHANICAL DATA

Coated unipotential cathode
Outline drawing. .......... 9-17 or 9-47
Base .................. B6-81 or B7-7 intermediate shell octal
or B7-84 or B7-59 short intermediate shell octal
Top cap. ................ Cl-2 skirted miniature
Maximum diameter ........ 1-9/32"
Maximum overall length ... 3-5/16"
Maximum seated height .... 2-3/4"
Pin connections .......... Basing 5M

*Pin 1 - No connection
Pin 2 - Heater
Pin 3 - No connection
Pin 4 - Plate
Pin 5 - No connection
Pin 7 - Heater
Pin 8 - Cathode
Top Cap - Grid

*Pin #1 omitted on Base Nos. B6-81 and B6-84

Mounting position ........ any

ELECTRICAL DATA

Ratings

Heater voltage (ac or dc). .......... 6.3 volts
Maximum heater-cathode voltage ... 90 volts
Maximum plate voltage ........... 300 volts

Typical Operating Conditions and Characteristics, Class A1 Amplifier

Heater voltage .......... 6.3 volts
Heater current .......... 300 ma
Plate voltage ........... 100 volts
Grid voltage ............ -1.0 volts
Plate resistance (approx.) ... 85,000 ohms
Transconductance ...... 1150 µhos
Plate current .......... 0.4 ma
Amplification factor ..... 100

Refer to "Interpretation of Receiving Tube Ratings"