7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (Design-Maximum Values):

Voltage (AC or DC) .................................. 6.3 ± 0.6 volts
Current at heater volts = 6.3 .......................... 0.180 amp

Peak heater-cathode voltage:
Heater negative with respect to cathode ...... 100 max. volts
Heater positive with respect to cathode ....... 100 max. volts

Direct Interelectrode Capacitances (Approx.):a

Grid to plate ....................................... 0.52 μf
Grid to cathode, internal
shield, and heater ......................... 5.0 μf
Plate to cathode, internal
shield, and heater ......................... 3.5 μf
Heater to cathode ........................... 2.5μf

Characteristics, Class A1 Amplifier:

Plate Voltage ...................................... 135 volts
Grid Voltage ....................................... -1.2 volts
Amplification Factor .............................. 74

Plate Resistance (Approx.) ...................... 6300 ohms
Transconductance ............................... 12000 μhos

Plate Current ..................................... 8.9 ma

Grid Voltage (Approx.) for plate μa = 100 .... -4.5 volts

Mechanical:

Operating Position ................................ Any
Type of Cathode ..................................... Coated Unipotential
Maximum Overall Length .......................... 2-1/8"
Maximum Seated Length ........................... 1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) 1-1/2" ± 3/32"
Diameter ........................................... 0.650" to 0.750"

Dimensional Outline .............................. See General Section

Bulb .................................................. T5-1/2
Base ............................................... Small-Button Miniature 7-Pin (JEDEC No.E7-1)

Basing Designation for BOTTOM VIEW ........ 7FP

Pin 1—Cathode
Pin 2—Grid
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Internal Shield
Pin 7—Cathode
AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

- **PLATE VOLTAGE** . . . . . . . . . . . . . . . . . . 200 max. volts
- **GRID VOLTAGE:**
  - Negative-bias value . . . . . . . . . . . . . . . . 50 max. volts
- **CATHODE CURRENT** . . . . . . . . . . . . . . . . 22 max. ma
- **PLATE DISSIPATION** . . . . . . . . . . . . . . . . 2.5 max. watts

Maximum Circuit Values:

- **Grid-Circuit Resistance:**
  - For cathode-bias operation . . . . . . . . . . . 1 max. megohm

[a] With external shield JEDEC No. 316 connected to cathode except as noted.
[b] With external shield JEDEC No. 316 connected to ground.

CURVES

Shown under Type 6GK5 also apply to the 6FQ5A