High-Mu Triode

7-PIN MINIATURE TYPE

Useful as Grounded-Cathode RF-Amplifier Tube in VHF Tuners

Electrical:

Heater Characteristics and Ratings:
- 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........ 110 max. volts
  - Heater positive with respect to cathode........ 110 max. volts

Direct Interelectrode Capacitances:
- Grid to plate................. 0.36 pf
- Grid to cathode, internal shield, external shield, and heater ....... 4.3 pf
- Plate to cathode, internal shield, external shield, and heater ....... 2.9 pf
- Cathode to plate.............. 0.080 pf
- Cathode to grid, internal shield, external shield, and heater ...... 3.1 pf
- Heater to cathode............. 2.3 pf
- Heater to grid................. 0.070 max. pf

Characteristics, Class A1 Amplifier:
- Plate Voltage................... 135 volts
- Grid Voltage .................. -1 volt
- Amplification Factor............ 72
- Plate Resistance (Approx.) ...... 5000 ohms
- Transconductance............. 14500 μmhos
- Plate Current .................. 11.5 ma
- Grid Voltage (Approx.) for Transconductance (μmhos) = 150 ........... -5.7 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. .......... 7GM

Pin 1 - Grid
Pin 2 - Cathode
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 Supply Voltage .................. 600 max. volts
- Plate Voltage ......................... 220 max. volts
- Grid Voltage:
  - Negative-bias value .................. 50 max. volts
  - Positive-bias value ................. 0 max. volts
- Cathode Current ....................... 22 max. ma
- Plate Dissipation ..................... 2.6 max. watts

Typical Operation:
- Plate Voltage ........................... 135 volts
- Grid Voltage, Adjusted for grid $\mu_a = 10$
- Plate Load Resistance .......... 1000 ohms
- Amplification Factor .................. 80
- Plate Resistance (Approx.) .... 4000 ohms
- Transconductance .................... 20000 $\mu$hos
- Plate Current ......................... 19 ma

Maximum Circuit Values:

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

* With external shield JEDEC No.316 connected to cathode.