Medium-Mu Triode

7-PIN MINIATURE TYPE
For UHF-Oscillator Service in TV Receivers

GENERAL DATA

Electrical:
Heater Characteristics and Ratings:
Voltage (AC or DC) ............. 6.3 ± 0.6 volts
Current at heater volts = 6.3 ........ 0.225 amp
Peak heater-cathode voltage:
Heater negative with respect to cathode ........ 50 max. volts
Heater positive with respect to cathode ........ 50^a max. volts
Direct Interelectrode Capacitances (Approx)^b:
Grid to plate ............ 1.8 pf
Grid to cathode and heater ........ 2.2 pf
Plate to cathode and heater ........ 1.3 pf

Characteristics, Class A_j Amplifier:
Plate Supply Voltage ............. 80 volts
Plate Resistor ............. 2700 ohms
Amplification Factor ............. 14
Plate Resistance (Approx) ........ 2000 ohms
Transconductance ............. 6700 μmhos
Plate Current ............. 15 ma
Grid Voltage (Approx) for plate μa = 20 ........ -11 volts

Mechanical:
Operating Position ............. Any
Type of Cathode ............. Coated Unipotential
Maximum Overall Length ............. 1-3/4"
Maximum Seated Length ............. 1-1/2"
Length, Base Seat to Bulb Top (Excluding tip) ........ 1-1/8" ± 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 ............. 7DK

Pin 1 - Plate
Pin 2 - Grid
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Cathode
Pin 6 - Grid
Pin 7 - Plate
UHF OSCILLATOR

Maximum Ratings, Design-Maximum Values:

- PLATE VOLTAGE: 135 max. volts
- GRID VOLTAGE:
  - Negative-bias value: 50 max. volts
- GRID CURRENT: 2 max. ma
- CATHODE CURRENT: 20 max. ma
- PLATE DISSIPATION: 2.3 max. watts

Typical Operation:

At frequency of 1000 Mc

- Plate Supply Voltage: 135 volts
- Plate-Circuit Resistance: 2700 ohms
- Grid Resistor: 10000 ohms
- Plate Current: 15.5 ma
- Grid Current (Approx): 800 μa

Maximum Circuit Values:

- Grid-Circuit Resistance:
  - For fixed-bias operation: Not recommended
  - For cathode-bias operation: 0.5 max. megohm

a The dc component must not exceed 25 volts.
b With external shield JEDEC No. 316 connected to cathode.
c Measured in JEDEC STANDARD OSCILLATION TEST SET No. 400 with external, added resistance in plate circuit.