Medium-Mu Triode

NUVISTOR TYPE
Having Gold-Plated Envelope and Base Pins to Assure Positive Grounding and Low Pin-Contact Resistance for Oscillator Applications at UHF Frequencies

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........ 0.135 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.):
- Grid to plate............... 1.8 pf
- Grid to cathode, shell, and heater........ 4.4 pf
- Plate to cathode, shell, and heater......... 1.9 pf
- Plate to cathode............... 0.25 pf
- Heater to cathode............ 1.4 pf
- Grid to cathode............... 3.7 pf

**Characteristics, Class A1 Amplifier:**

- Plate Supply Voltage............. 75 volts
- Cathode Resistor................. 100 ohms
- Amplification Factor............. 35
- Plate Resistance (Approx.)........ 3100 ohms
- Transconductance................. 11500 μmhos
- Plate Current.................... 10.5 ma
- Grid Voltage (Approx.) for plate μA = 10........ -7 volts

**Mechanical:**

- Operating Position............. Any
- Type of Cathode.................. Coated Unipotential
- Maximum Overall Length........... 0.800"
- Maximum Seated Length........... 0.625"
- Maximum Diameter................ 0.440"
- Envelope................. Metal Shell MT4
- Socket........... Industrial Electronic Hardware Corp. No. MSN0707-1, or equivalent
- Base........... Medium Ceramic-Wafer Twelve 7-Pin (JEDEC No. E7-83)
6DV4

Basing Designation for BOTTOM VIEW ................. 12EA

Pin 1 - Plate
Pin 2 - Plate
Pin 3 - Do Not Use
Pin 4 - Grid
Pin 5 - Same as Pin 3
Pin 6 - Grid
Pin 7 - Cathode
Pin 8 - Same as Pin 3
Pin 9 - Same as Pin 3
Pin 10 - Heater
Pin 12 - Heater

AMPLIFIER — Class A

Maximum Ratings, Design-Maximum Values:

PLATE SUPPLY VOLTAGE ........... 300 volts
PLATE VOLTAGE ................... 125 volts
GRID VOLTAGE:
  Negative-bias value .............. 55 volts
  Peak-positive value .............. 2 volts
CATHODE CURRENT ............... 15 ma
PLATE DISSIPATION .............. 1 watt

Typical Operation:

As oscillator at 950 Mc

Plate Voltage ............... 60 volts
Grid Voltage ................. -2 volts
Grid Resistor ............ 5600 ohms
Plate Current ............ 8 ma
Grid Current .............. 350 µa

Maximum Circuit Values:

Grid-Circuit Resistance:
  For fixed-bias operation .......... 0.1 max. megohm
  For cathode-bias operation ........ 0.2 max. megohm

---

* Pin is of a length such that its end does not touch the socket insertion plane.

b A plate supply voltage of 300 volts may be used provided that a sufficiently large resistor is used in the plate circuit to limit the plate dissipation to one watt under any condition of operation.

c For operation at metal-shell temperatures up to 135°F.
NOTE 1: MAXIMUM OUTSIDE DIAMETER OF 0.440" IS PERMITTED ALONG 0.190" LUG LENGTH.

NOTE 2: SHELL TEMPERATURE SHOULD BE MEASURED IN ZONE "A" BETWEEN BROKEN LINES.