General:
Heater, for Unipotential Cathode:
  Voltage. 6.3 ac or dc volts
  Current. 0.6 ± 10% amp
Direct Interelectrode Capacitances (Approx.):
  Grid No.1 to all other electrodes. 9 μuf
  Cathode to all other electrodes. 6 μuf
Faceplate, Spherical  Filterglass
  Light transmission (Approx.) 76%
Phosphor (For Curves, see front of this Section) P7
  Fluorescence  Blue
  Persistence. Short
  Phosphorescence. Greenish-Yellow
  Persistence. Long
Focusing Method. Magnetic
Deflection Method. Magnetic
Deflection Angle (Approx.) 50°
Overall Length. 19-5/8" ± 1/2"
Greatest Diameter of Bulb. 12" ± 3/16"
Minimum Useful Screen Diameter 10"
Weight (Approx.). 8 lbs
Mounting Position. Any
Cap. Medium (JETEC No.C1-5)
Bulb. J061
Base. Long Medium-Shell Octal 8-Pin (JETEC No.B8-65), or Long Medium-Shell Octal 5-Pin (JETEC No.B5-80)
Basing Designation for BOTTOM VIEW 5AN

Pin 1 - No Connection
Pin 2 - Heater
Pin 3 - Grid No.2
Pin 4 - No Connection
Pin 5 - Grid No.1
Pin 6 - No Connection
Pin 7 - Cathode
Pin 8 - Heater
Cap - Ultor (Grid No.3, Collector)

Maximum Ratings, Design-Center Values:
ULTOR VOLTAGE. 10000 max. volts
GRID-No.2 VOLTAGE:
  Positive value (DC or Peak AC) 700 max. volts
  Negative value (DC or Peak AC) 180 max. volts
GRID-No.1 VOLTAGE:
  Negative bias value. 180 max. volts
  Positive bias value. 0 max. volts
  Positive peak value. 2 max. volts

* At or near this rating, the effective resistance of the ultor supply should be adequate to limit the ultor input power to 6 watts.

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Indicates a change.
PEAK GRID—No. 1 DRIVE FROM CUTOFF ........ 65 max. volts
PEAK HEATER—CATHODE VOLTAGE:
Heater negative with respect to cathode 125 max. volts
Heater positive with respect to cathode 125 max. volts

Equipment Design Ranges:
For any ultron voltage \( (E_{c3}) \) between 4000* and 10000 volts
and grid-No. 2 voltage \( (E_{c2}) \) between 150 and 750 volts

Grid-No. 1 Voltage for Visual
Extinction of Undelected
Focused Spot ................ -10% to -28% of \( E_{c2} \) volts
Grid-No. 2 Current ............ -15 to +15 \( \mu \)amp

Focusing-Coil Current (DC)\(^{oo} \) \[ \sqrt{\frac{E_{c3}}{4000}} \times 88.5 \] ± 15% ma

Spot Position .................

Examples of Use of Design Ranges:
For ultron voltage of
and grid-No. 2 voltage of

Grid-No. 1 Voltage for Visual
Extinction of Undelected
Focused Spot ................ -25 to -70 -25 to -70 volts
Focusing-Coil Current (DC) . 75 to 102 99 to 135 ma

Maximum Circuit Values:
Grid-No. 1—Circuit Resistance ........ 1.5 max. megohms

* Brilliance and definition decrease with decreasing ultron voltage. In
general, the ultron voltage should not be less than 4000 volts.

\(^{oo} \) For specimen focusing coil similar to JETEC Focusing Coil No. 106
positioned with air gap toward faceplate and center line of air gap
4-1/8" from Reference Line (See Dimensional Outline) and ultron current
of 200 microamperes.

## The center of the undeflected, unfocused spot will fall within a
circle having a 20-mm radius concentric with the center of the
tube face.

NOTE 2: REFERENCE LINE IS DETERMINED BY POSITION WHERE GAUGE 1.430" + .003" - .000" I.D. and 2" LONG WILL REST ON BULB CONE.

NOTE 3: Ø OF BULB WILL NOT DEVIATE MORE THAN 2° IN ANY DIRECTION FROM THE PERPENDICULAR ERECTED AT THE CENTER OF THE BOTTOM OF THE BASE.
AVERAGE GRID-DRIVE CHARACTERISTICS

$E_g = 6.3$ VOLTS
ULTOR VOLTS = 4000-10000
GRID N&I BIASED TO CUTOFF
OF UNDEFLECTED FOCUSED SPOT

APRIL 9, 1952  TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY