



16ADP7

16ADP7

OSCILLOGRAPH TUBE

METAL-SHELL ENVELOPE

MAGNETIC FOCUS

MAGNETIC DEFLECTION

DATA

General:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 0.6 amp

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to All Other Electrodes 6 μf Cathode to All Other Electrodes 5 μf

Faceplate, Spherical. Filterglass

Light Transmission (Approx.). 66%

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.). 53°

Maximum Overall Length. 22"

Greatest Diameter at Lip. $15\text{--}7/8" + 1/8"$ Minimum Useful Screen Diameter. $14\text{--}3/8"$

Ultor* Terminal Metal-Shell Lip

Mounting Position Any

Base. Small-Shell Duodecal 7-Pin (JETEC No.B7-51)

BOTTOM VIEW

Pin 1-Heater

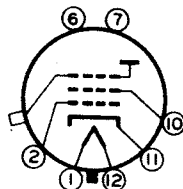
Pin 2-Grid No.1

Pin 6-No

Connection

Pin 7-No

Connection



Pin 10-Grid No.2

Pin 11-Cathode

Pin 12-Heater

Cap-Ultor

(Grid No.3,
Collector)

Maximum Ratings, Design-Center Values:

ULTOR* VOLTAGE 14000 max. volts

GRID-No.2 VOLTAGE:

Positive value (DC or Peak AC). 410 max. volts

Negative value (DC or Peak AC). 180 max. volts

GRID-No.1 VOLTAGE:

Negative bias value 180 max. volts

Positive bias value ϕ 0 max. volts

Positive peak value 2 max. volts

PEAK GRID-No.1 DRIVE FROM CUTOFF. 65 max. volts

* In the 16ADP7, grid No.3 which has the ultor function, and collector are connected together within the tube and are conveniently referred to collectively as "ultor". The "ultor" in a cathode-ray tube is the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

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

FEB. 1, 1952

TUBE DEPARTMENT

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

16ADP7



16ADP7 OSCILLOGRAPH TUBE

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode .	125 max.	volts
Heater positive with respect to cathode .	125 max.	volts

Typical Operation:

Ultor Voltage*	12000	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage for Visual Extinction of Undelected Focused Spot	-27 to -63	volts
Grid-No.2 Current	-15 to +15	μ amp
Focusing-Coil Current (DC) ^{oo}	95 $\pm$ 15%	ma
Spot Position	##	

Maximum Circuit Values:

Grid-No.1-Circuit Resistance.	1.5 max.	megohms
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* Brilliance and definition decrease with decreasing ultor voltage. In general, the ultor voltage should not be less than 8000 volts.

^{oo} For specimen focusing coil similar to JETEC Focusing Coil No.109 positioned with air gap toward faceplate and center line of air gap 3-1/4" from Reference Line (see Outline Drawing) and ultor current of 200 microamperes.

The center of the undeflected, unfocused spot will fall within a circle having 25-mm radius concentric with the center of the tube face.

FEB. 1, 1952

TUBE DEPARTMENT

TENTATIVE DATA

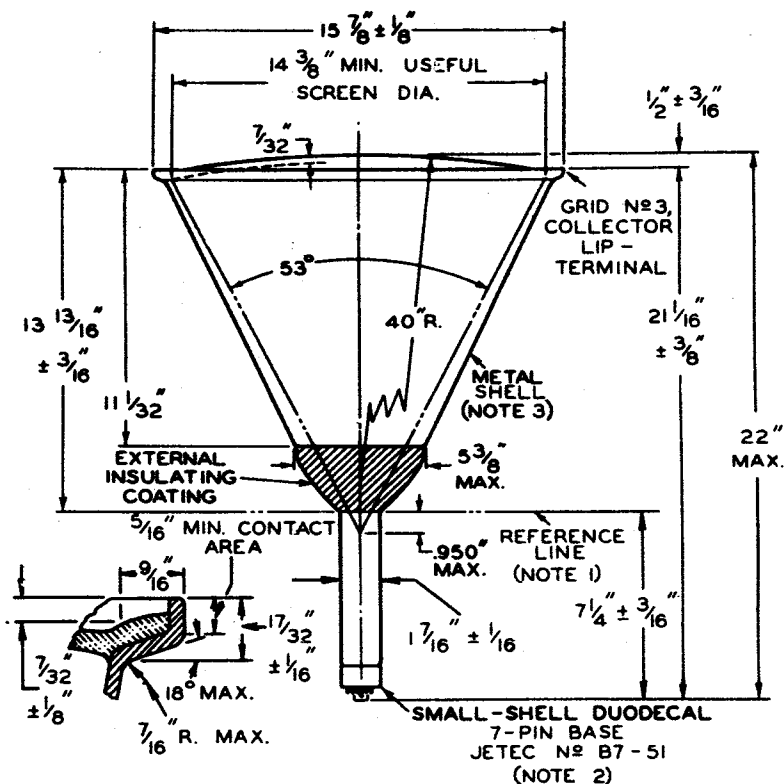
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16ADP7

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DETAIL OF LIP

92CM - 7690

NOTE 1: REFERENCE LINE IS DETERMINED BY POSITION WHERE REFERENCE-LINE GAUGE (JETEC No. 112) 1.500" + 0.003" - 0.000" I.D. AND 2" LONG WILL REST ON FUNNEL.

NOTE 2: SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED; IT SHOULD HAVE FLEXIBLE LEADS AND BE ALLOWED TO MOVE FREELY. BOTTOM CIRCUMFERENCE OF BASE SHELL WILL FALL WITHIN CIRCLE CONCENTRIC WITH METAL-SHELL AXIS AND HAVING DIAMETER OF 3".

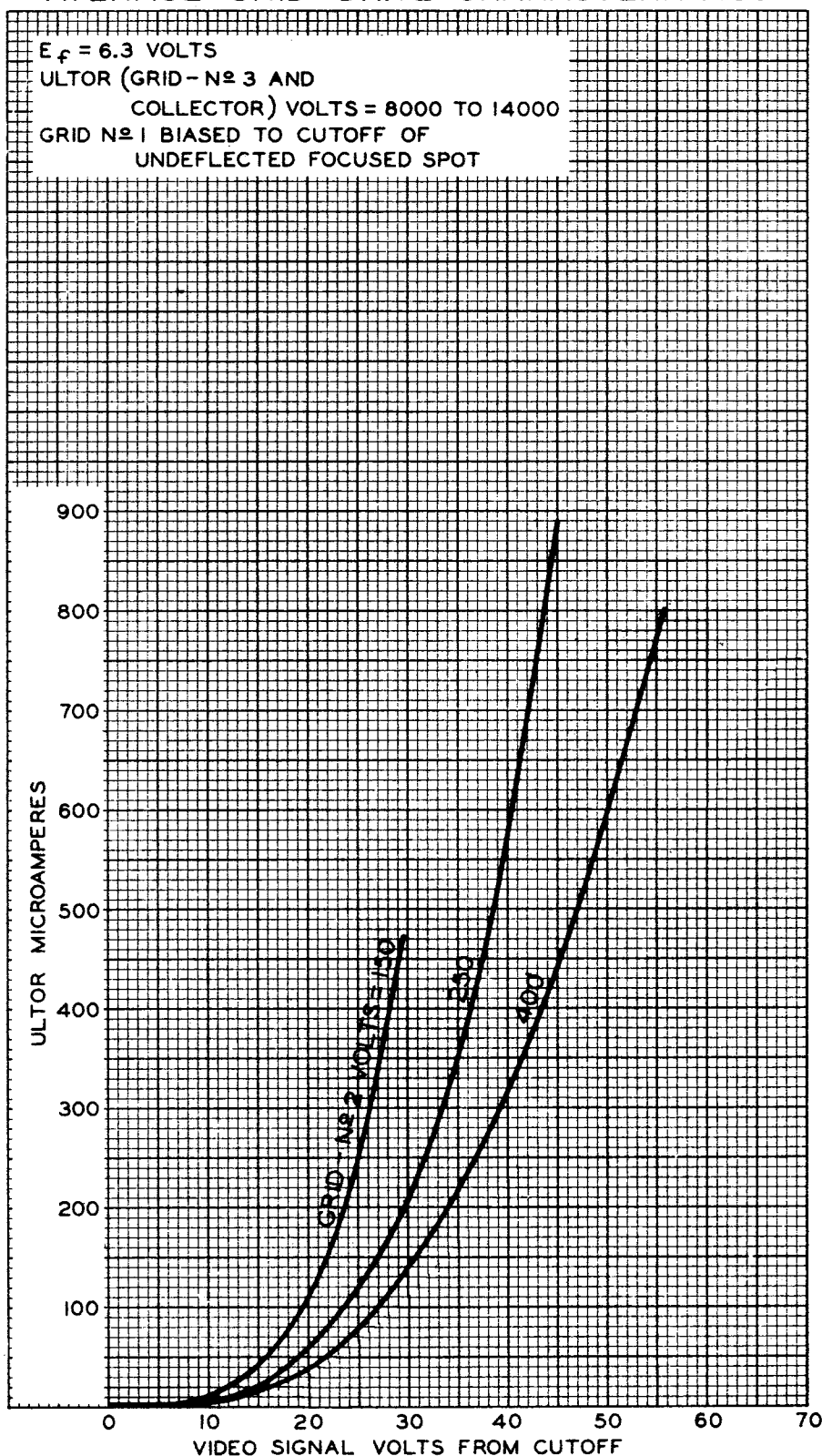
NOTE 3: METAL SHELL AND GLASS FACE OPERATE AT HIGH VOLTAGE. ANY MATERIAL IN CONTACT WITH THE SHELL OR THE FACE MUST BE INSULATED TO WITHSTAND THE MAXIMUM APPLIED ULTOR VOLTAGE.

16ADP7



16ADP7

AVERAGE GRID-DRIVE CHARACTERISTICS



OCT. 5, 1951

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92CM-7692