



5TP4

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PROJECTION KINESCOPE

ELECTROSTATIC 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. 7.5 μf Cathode to All Other Electrodes. 5.0 μf External Conductive Coating to Anode No.2 { 500 max. μf
100 min. μf

Phosphor (For Curves, see front of this Section) No.4

Fluorescence and Phosphorescence White

Persistence of Phosphorescence Medium

Focusing Method. Electrostatic

Deflection Method. Magnetic

Deflection Angle (Approx.) 50° Overall Length $11\frac{3}{4}'' \pm \frac{3}{8}''$ Greatest Diameter of Bulb. $5'' \pm \frac{1}{8}''$ Minimum Useful Screen Diameter $4\frac{1}{2}''$ Minimum Optical-Quality-Circle Diameter. $4\frac{1}{4}''$

Mounting Position. Any

Cap. Recessed Small Cavity

Base Small-Shell Duodecal 7-Pin

Basing Designation for BOTTOM VIEW 12C

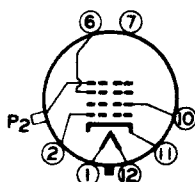
Pin 1-Heater

Pin 2-Grid No.1

Pin 6-Anode No.1

Pin 7-Internal Con.-P₂

Do Not Use



Pin 10-Grid No.2

Pin 11-Cathode

Pin 12-Heater

Cap - Anode No.2

Maximum Ratings, Design-Center Values:

ANODE-No.2 VOLTAGE 27000 max. volts

ANODE-No.1 VOLTAGE 6000 max. volts

GRID-No.2 VOLTAGE. 350 max. volts

GRID-No.1 (CONTROL ELECTRODE) VOLTAGE:

Negative bias value. 150 max. volts

Positive bias value. 0 max. volts ←

Positive peak value. 2 max. volts ←

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode:

During equipment warm-up period not

exceeding 15 seconds 410 max. volts ←

After equipment warm-up period 175 max. volts ←

Heater positive with respect to cathode 10 max. volts

Typical Operation:

Anode-No.2 Voltage* 27000 volts

Anode-No.1 Voltage for Focus

when anode-No.2 current is 200 μa 4320 to 5400 volts ←

* See next page.

← Indicates a change.

MAR. 15, 1948

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Grid-No.2 Voltage**	200 . .	volts
→ Grid-No.1 Voltage for Visual Cutoff ^o . .	-42 to -98	volts
Anode-No.2 Current	200 . .	μa
→ Max. Anode-No.1 Current	65 . .	μa
Max. Grid-No.2 Current	±15 . .	μa

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	1.5 max.megohms
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→ **Minimum Circuit Values:**

When the output capacitor of the power supply is capable of storing more than 250 microcoulombs, and when the inherent regulation of the power supply permits the instantaneous short-circuit current to exceed 1 ampere, the effective resistance in circuit between indicated electrode and the output capacitor should be as follows:

Grid-No.1-Circuit Resistance	180 min.	ohms
Grid-No.2-Circuit Resistance	390 min.	ohms
Anode-No.1-Circuit Resistance	6800 min.	ohms
Anode-No.2-Circuit Resistance	30000 min.	ohms

The resistors used should be capable of withstanding the voltages involved.

Components:

Deflection Yoke	RCA Type No.201D2
Horizontal Output Transformer (for use with two 6BG6-G's)	RCA Type No.211T2
Vertical Output Transformer	RCA Type No.204T2

* Brilliance and definition decrease with decreasing anode voltages. In general, anode No.2 voltage should not be less than 20000 volts.

** Subject to variation of ±40% if it is desired to operate any tube at a grid-No.1 cutoff bias of -70 volts.

^o Visual extinction of undeflected focused spot.

→ Indicates a change.

MAR. 15, 1948

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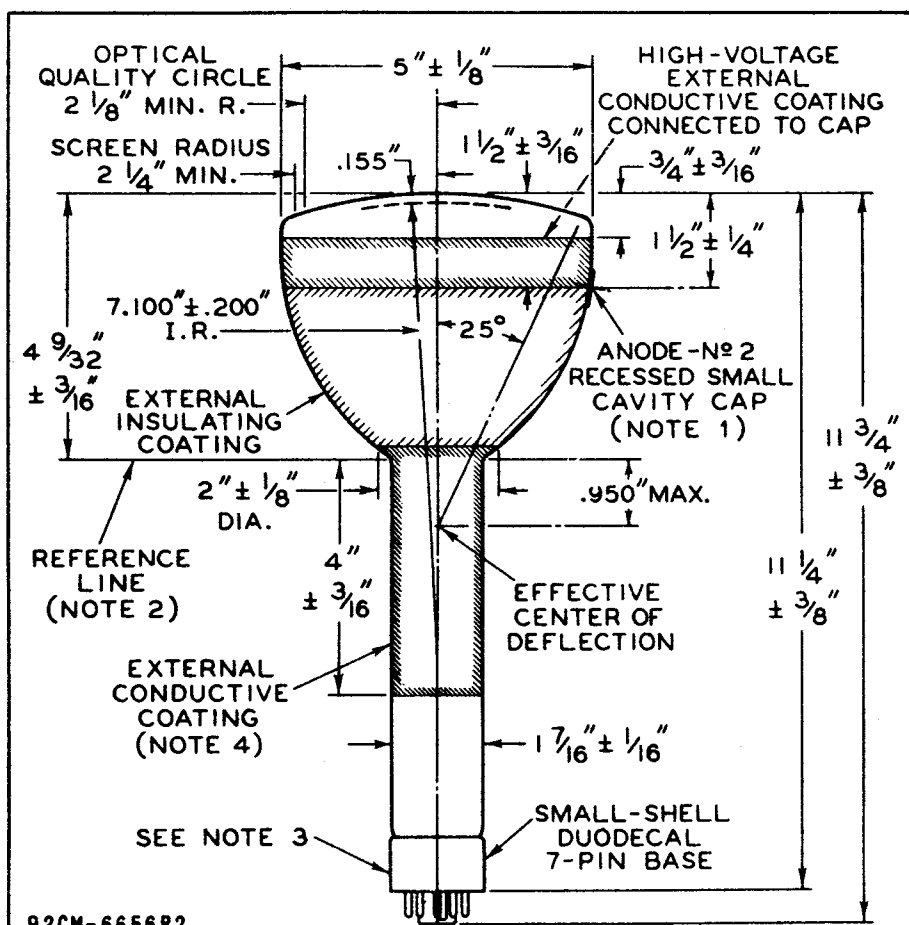
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NOTE 1: THE PLANE THROUGH THE TUBE AXIS AND VACANT PIN POSITION No.3 MAY VARY FROM THE PLANE THROUGH THE TUBE AXIS AND ANODE-No.2 TERMINAL BY AN ANGULAR TOLERANCE (MEASURED ABOUT THE TUBE AXIS) OF 10°. ANODE-No.2 TERMINAL IS ON SAME SIDE AS VACANT PIN POSITION No.3.

NOTE 2: REFERENCE LINE IS DETERMINED BY POSITION WHERE HINGED GAUGE 1.500" + .003" - .000" I.D. AND 2" LONG WILL REST ON BULB CONE.

NOTE 3: SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED; IT SHOULD HAVE FLEXIBLE LEADS AND BE ALLOWED TO MOVE FREELY.

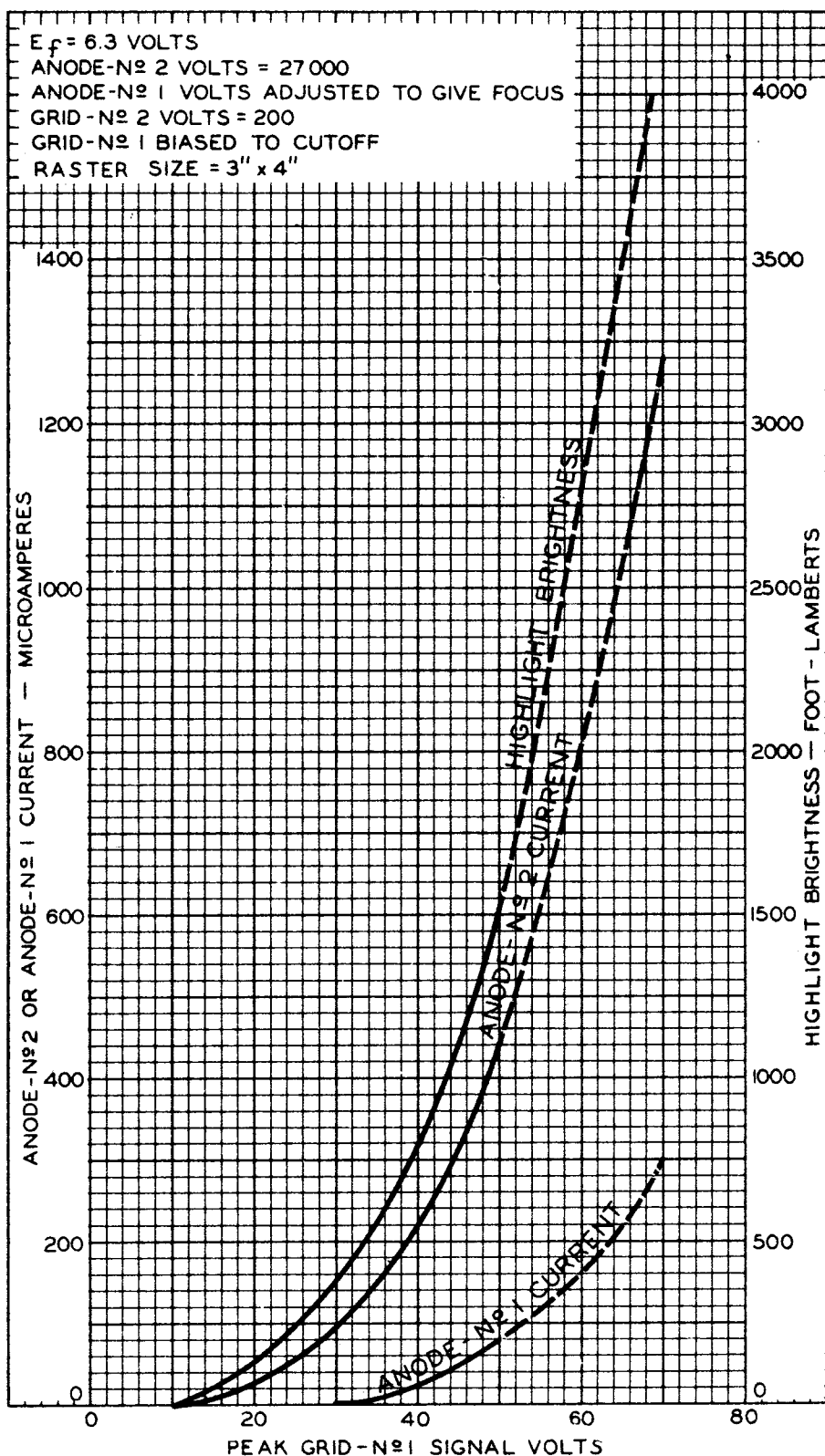
NOTE 4: EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED.

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AVERAGE CHARACTERISTICS



FEB. 7, 1946

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92CM-6670