LANSDALE
TUBE COMPANY
A wholly owned subsidiary of Philco Corporation.
21 CHURCH ROAD, LANSDALE, PA., LANSDALE 4681

Issue Date - October 31, 1951
Supersedes

7CP18 Cathode Ray Tube

The 7CP18 is an electrostatic focus and magnetic deflection oscillograph tube intended for oscillographic applications.

GENERAL CHARACTERISTICS

Electrical

Heater Voltage	6.3	Volts
Heater Current	0.6 ± 10%	Amperes
Focusing Method	Electrostatic	
Deflecting Method	Magnetic	
Approximate Deflecting Angle	57	Degrees
Phosphor		
Fluorescence	White	
Phosphorescence	White	
Persistance	Medium	
Direct Interelectrode Capacitances, Approx,		
Cathode to All Other Electrodes	6.5	uuf
Grid #1 to All Other Electrodes	8.0	uuf

Mechanical

Overall Length	13 7/16 ± 3/8	Inches
Greatest Diameter of Bulb	7 ± 1/8	Inches
Minimum Useful Screen Diameter	6 1/2	Inches
Bulb Contact	J1 - 22	
Base	Medium Long Shell Octal	
Basing	6AZ	

MAXIMUM RATINGS Design Center Values

Anode #2 Voltage	8000 Max Volts D. C.
Anode #1 Voltage	2400 Max Volts
Grid #2 Voltage	300 Max Volts
Grid #1 Voltage	
Negative bias value	125 Max Volts D. C.
Positive bias value	0 Max Volts D. C.
Positive peak value	2 Max Volts
Peak Heater-Cathode Voltage[1]	
Heater negative with respect to cathode	
During equipment warm-up period not exceeding 15 seconds	410 Max Volts D. C.
After equipment warm-up period.	125 Max Volts D. C.
Heater positive with respect to cathode	125 Max Volts D. C.

TYPICAL OPERATING CONDITIONS

Anode #2 Voltage	4000	7000	Volts
Anode #1 Voltage	545-975	955-1780	Volts
Grid #2 Voltage	250	250	Volts
Grid #1 Voltage[2]	-22.5 to -67.5	-22.5 to -67.5	Volts
Spot Position[3]		15	Max Millimeters

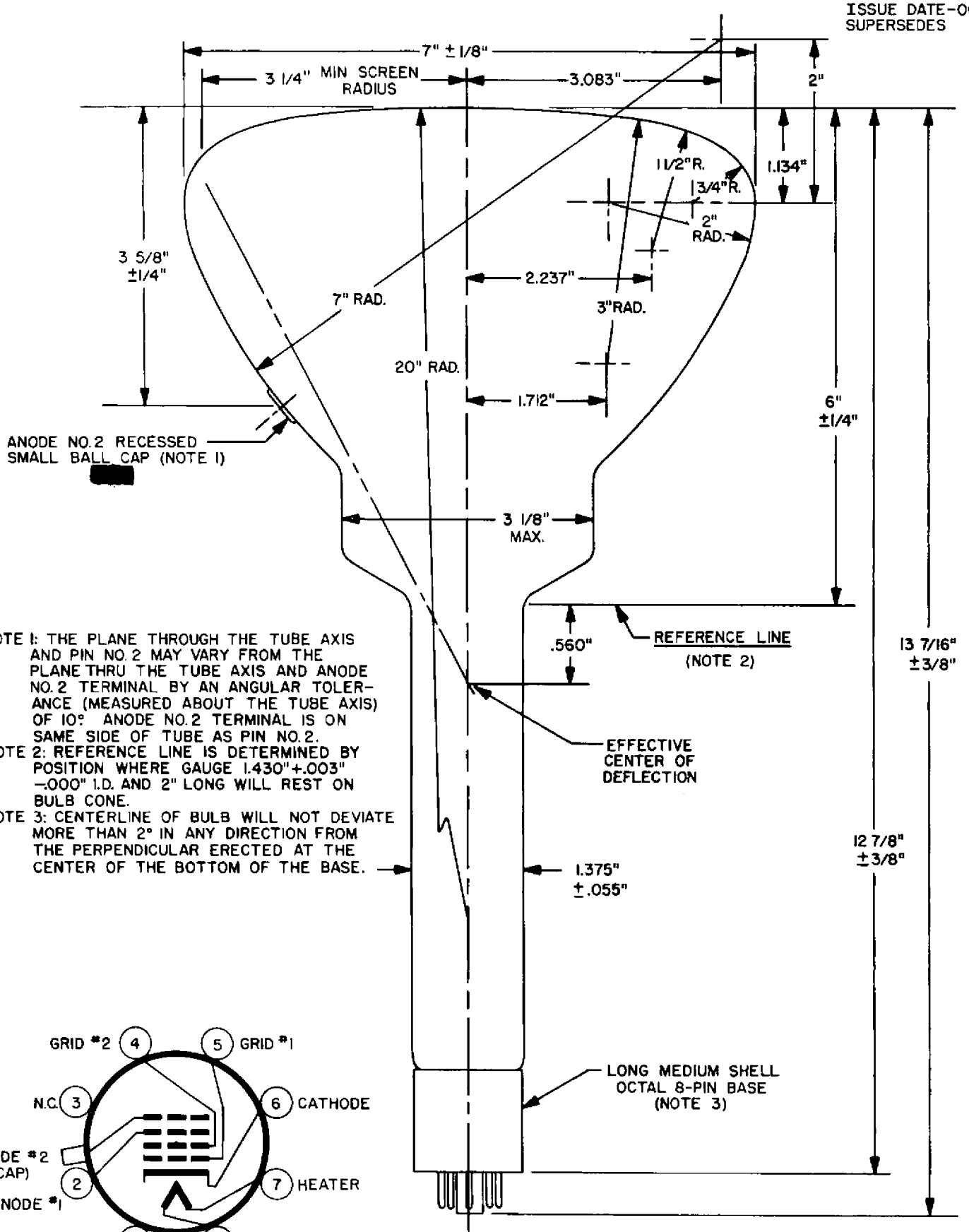
MAXIMUM CIRCUIT VALUES

Grid #1 Circuit Resistance	1.5 Max Megohms

1. Cathode should be returned on one side or to the mid-top of the heater transformer winding.

2. Visual extinction of undeflected focused spot.

3. The focused, undeflected spot shall fall within a circle of 15 mm radius concentric with the center of the tube face.



NOTE 1: THE PLANE THROUGH THE TUBE AXIS AND PIN NO. 2 MAY VARY FROM THE PLANE THRU 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 OF TUBE AS PIN NO. 2.

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: CENTERLINE OF BULB WILL NOT DEVIATE MORE THAN 2° IN ANY DIRECTION FROM THE PERPENDICULAR ERECTED AT THE CENTER OF THE BOTTOM OF THE BASE.

BASING DIAGRAM

7CP18

E_f = 6.3 VOLTS
ANODE-NO 1 VOLTS ADJUSTED TO GIVE FOCUS
GRID-NO 2 VOLTS=250
ANODE-NO 2 VOLTS=4000
GRID-NO 1 BIASED TO CUTOFF
RASTER SIZE=2"X2"