

5827A CATHODE RAY TUBE

This is an oscillograph tube with a long persistence screen for the observation of slowly varying phenomena.

GENERAL DESIGN

Electrical

Heater voltage	6.3 $\pm$ 10% volts. A3 or B3
Heater current	0.6 $\pm$ 10% amperes
Focusing method	Electrostatic
Deflecting method	Electrostatic
Phosphor	P7
Fluorescence	Blue
Phosphorescence	Yellow
Persistence	Long
Direct Inter-electrode capacitances, nominal	
Grid No. 1 to all other electrodes	8 μ f
D1 to D2	1 μ f
D3 to D4	1 μ f
D1 to all other electrodes except D2	8 μ f
D2 to all other electrodes except D1	8 μ f
D3 to all other electrodes except D4	10 μ f
D4 to all other electrodes except D3	8 μ f

Mechanical

Overall length	16 3/4 inches
Greatest diameter of bulb	5 1/4 inches
Minimum useful screen diameter	4 1/2 inches
Base	Medium shell magual 11 pin
Basing	RMA designation 11N
Base alignment	
D3D4 trace aligns with pin 1 and tube axis $\pm$ 10 degrees.	
Positive voltage on D1 deflects beam approximately towards pin 4.	
Positive voltage on D3 deflects beam approximately towards pin 1.	
D1 and D2 are the deflecting electrodes nearer the screen.	

MAXIMUM RATINGS (Design center values)

Anode No. 2 and Grid No. 2 voltage	2000 max. volts DC
Anode No. 1 voltage	1000 max. volts DC
Grid No. 1 voltage	-125 to 0 volts
Peak voltage between Anode No. 2 and any deflecting electrode	500 max. volts

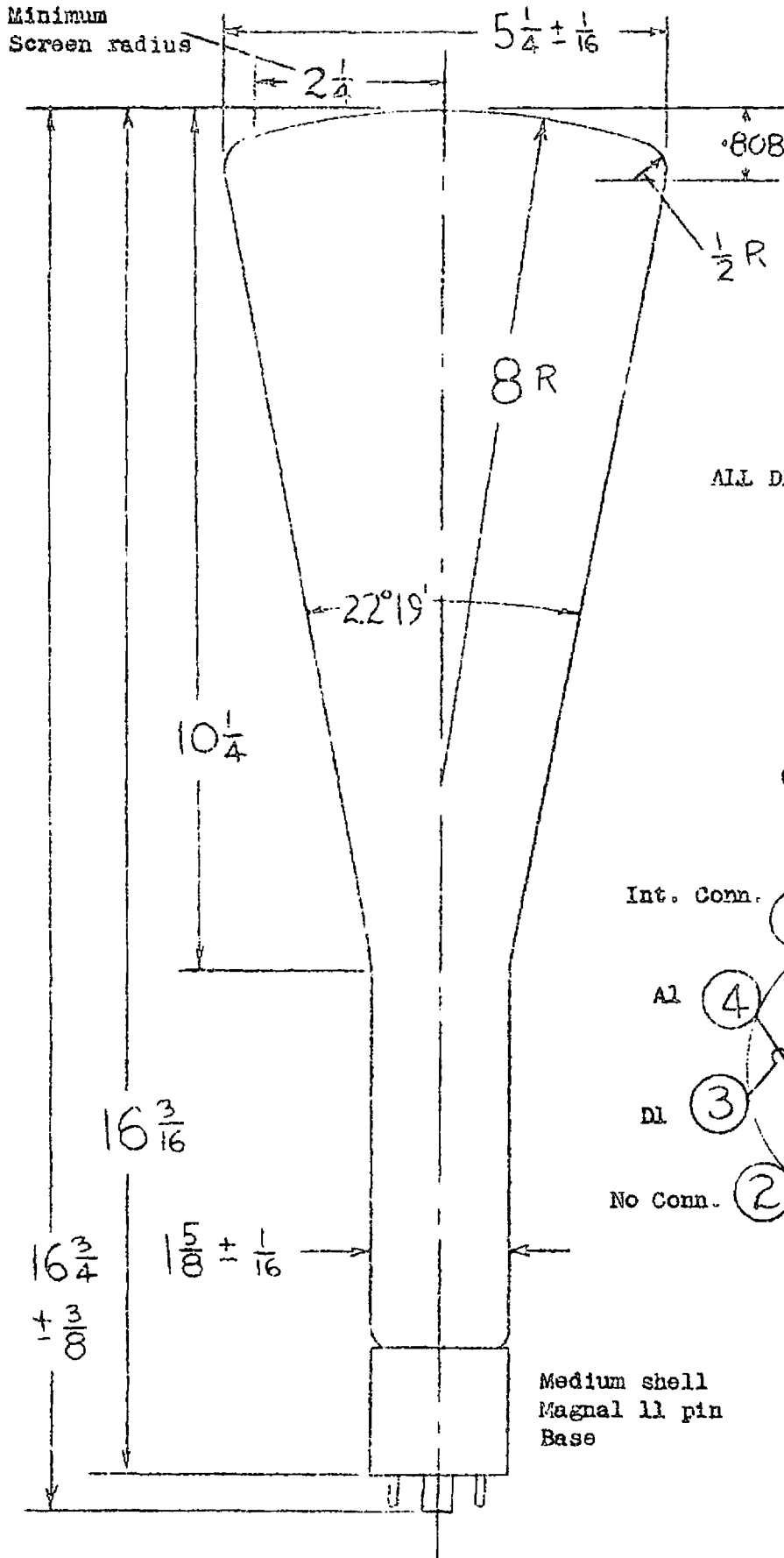
TYPICAL OPERATING CONDITIONS

Anode No. 2, Grid No. 2 voltage	1500	2000	Volts DC
Anode No. 1 voltage for focus	235 to 420	315 to 560	Volts DC
Grid No. 1 voltage for visual cutoff	-15 to -45	-20 to -60	Volts DC
D1 and D2 deflection factor	52 to 74	70 to 98	Volts DC/inch
D3 and D4 deflection factor	47 to 67	63 to 89	Volts DC/inch
Anode No. 1 current for any operating condition	-50 to +10 μ amp.		
Spot centering	Within 15 mm square		

MAXIMUM CIRCUIT VALUES

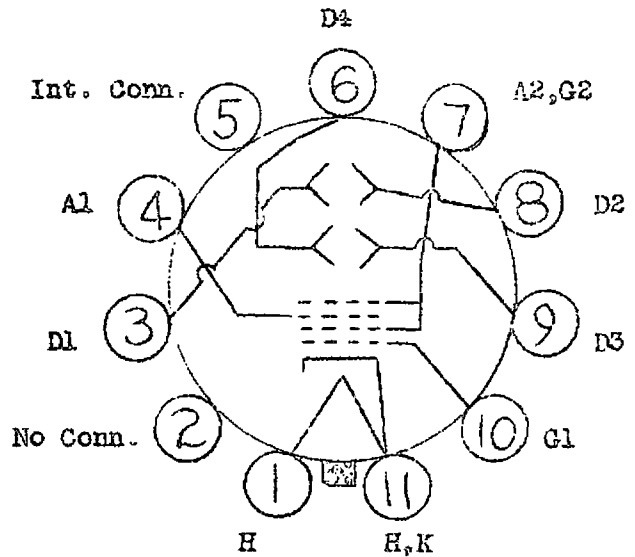
Grid No. 1 circuit resistance	1.5 max. megohms
Resistance in any deflecting electrode circuit	5.0 max. megohms
(It is recommended that the deflecting electrode circuit resistances be approximately equal)	

April 1947



ALL DIMENSIONS IN INCHES

BOTTOM VIEW
OF BASE CONNECTIONS



Medium shell
Magnal 11 pin
Base