

# Federal Telecommunication Laboratories, Inc.

67 BROAD STREET

NEW YORK 4, N. Y.

## TYPE 8C22

The 8C22 is a 3 electrode tube designed for use as a UHF pulse oscillator. The anode is forced-air-cooled and is capable of dissipating 1 kilowatt. The cathode is a thoriated-tungsten filament. Maximum ratings apply up to 400 megacycles.

<u>Electrical Data</u>	<u>Min.</u>	<u>Bogey</u>	<u>Max.</u>	
Filament Voltage		4.1		volts
Filament Current	296	320	344	amperes
Filament Starting Current			480	amperes
Filament Cold Resistance		.0017		ohms.
Amplification Factor at $I_b = 15.0$ amp. $E_c = -100$	7	9	11	

## Interelectrode Capacitances

Grid-Plate	7.06	8.3	9.5
Grid-Filament	16.0	19.5	23.0
Plate-Filament	0.65	0.98	1.3

## Mechanical Data

Mounting Position-Vertical				
Type of Cooling-Forced-Air				
Maximum Incoming Air Temperature				45°C
Required Air Flow on Anode				
Plate Dissipation-Kilowatts	1.0	0.8	0.6	
Air Flow-Cubic Feet per Minute	55	45	40	
Pressure-Inches Water	2.7	1.8	1.4	
Required Air Flow on Bulb or Stem (1)	15			CFM
Maximum Glass Temperature (Anode Seal)			200°	C
Net Weight, approximate			7.0	pounds

(1) May be obtained by directing approximately 15 cubic feet per minute across stem by the use of a suitable blower.

## Maximum Ratings

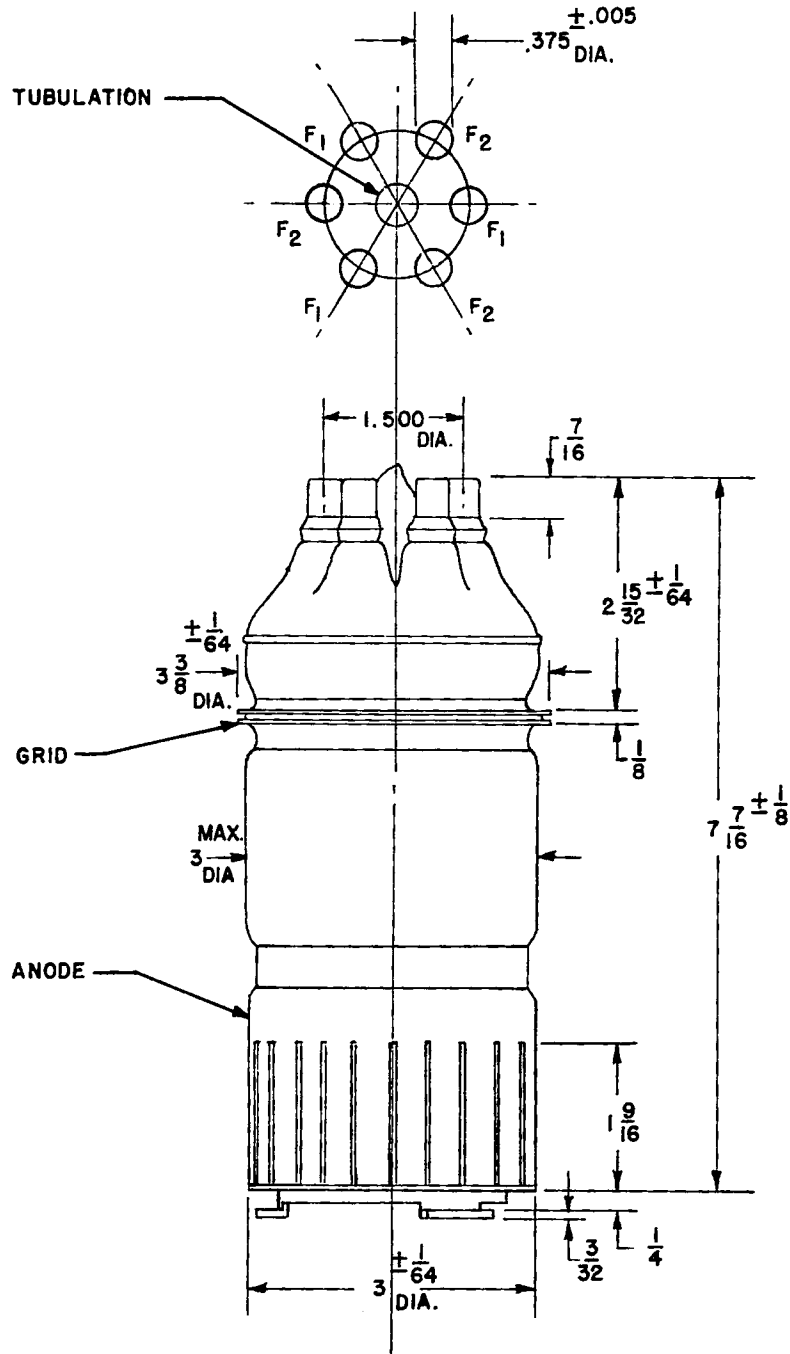
Plate-Modulated Class C Pulse Oscillator				
D-C Plate Voltage	25000	max.		volts
D-C Grid Voltage	4000	max.		volts
D-C Plate Current (during pulse)	50	max.		amperes
D-C Plate Current	25	max.		ma.
D-C Grid Current	10	max.		ma.
Average Power Input	625	max.		watts
Plate Dissipation	600	max.		watts
Duty Cycle	.05	max.		%
Pulse Duration	5	max.		u sec.



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