GENERAL ELECTRIC
POWER TUBE DEPARTMENT
Schenectady 5, N. Y.

OBJECTIVE
TECHNICAL INFORMATION

These ratings represent the design objective for this product. Refer to the Preliminary Technical Information sheet for ratings currently achieved in the progression towards design objectives. If PTI sheets do not exist, consult your local Tube Department Regional Sales Office.

ZP-1024

TRIODE

Internal Feedback for Oscillator Service
Grounded-Grid Operation

Heat-Sink and Forced-Air Cooled
Metal and Ceramic

The ZP-1024 is a heat-sink-cooled triode especially designed for pulsed-oscillator service in L-band, providing useful output at frequencies up to approximately 1700 megacycles.

The tube features internal feedback which eliminates the need for the complicated external circuit arrangements normally required in oscillator service.

Other features of the ZP-1024 are long life and reliability, long pulse width and high power output capability.

ELECTRICAL	Minimum	Bogey	Maximum	
Heater Voltage	–	6.3	–	Volts
Heater Current	–	3.8	–	Amperes
Cathode Heating Time	1	–	–	Minute
Direct Interelectrode Capacitances				
Cathode to Plate †	–	0.5	–	μμf
Input	–	20	–	μμf
Output	–	7.8	–	μμf

MECHANICAL		
Mounting Position – Any		
Net Weight, approximately	9	Ounces

THERMAL		
Cooling – Heat-sink and Forced-Air ‡		
Anode Temperature §, maximum	250	C
Seals		
Screen and Control Grid, approximate	1	Cubic Foot per Minute
Heater and Cathode, approximate	1	Cubic Foot per Minute
Ceramic Temperature at Any Point, maximum	200	C

PLATE-PULSED OSCILLATOR – CLASS C

Maximum Ratings

DC Plate Voltage, during pulse	6.5	Kilovolts
DC Plate Current, during pulse	6.5	Amperes
DC Grid Voltage, during pulse	-400	Volts
Plate Dissipation	150	Watts
Pulse Width◊	1	Microsecond
Duty Factor♥ ϕ	.001	

The specifications of this type are subject to change. This device is now under development and is made available for experimental purposes only. For the most recent information concerning the status of this development, please consult your local Tube Department Regional Sales Office, or current Preliminary Technical Information for the same catalog number.

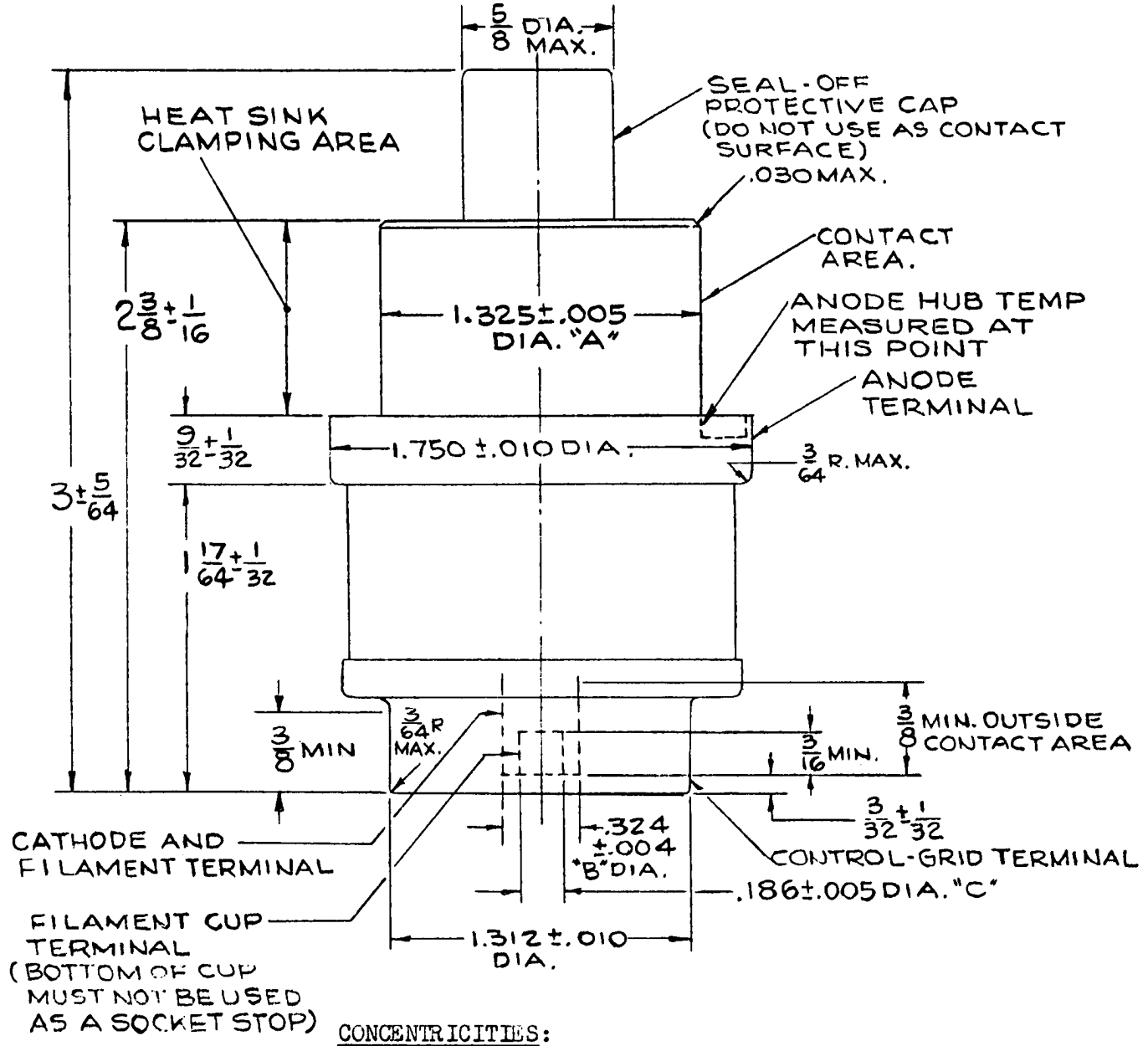
PLATE-PULSED OSCILLATOR - CLASS C (Cont'd)

Typical Operation

Grounded-Grid Service at 1100 Megacycles, 3/4 λ Output Circuit

DC Plate Voltage, during pulse	6.0	Kilovolts
DC Plate Current, during pulse	6.25	Amperes
DC Grid Current, during pulse	2.5	Amperes
Power Output, during pulse (useful)	15	Kilowatts
Pulse Width	1	Microsecond
Duty Factor	.001	

† Complete external shielding between cathode and plate.
‡ Forced-air cooling should be applied during the application of any voltages.
§ A suitable heat-sink clamping arrangement must be provided to limit the anode hub temperature to the value specified; the temperature is measured at the point indicated on the outline drawing.
♈ For applications that require longer pulses or higher duty refer to the tube manufacturer for recommendations.
◊ Pulse duration is measured between points at 70 percent of the peak value. The peak value is defined as the maximum value of a smooth curve through the average of the fluctuations over the top portion of the pulse.
ϕ Maximum ratio of on-time to elapsed time during any 1-millisecond period.



CONCENTRICITIES:

The following total indicator readings are measured with respect to a centerline determined by the centers of the anode terminal and control grid terminal.

Diameter A - 0.030 inches
Diameter B - 0.036 inches
Diameter C - 0.042 inches

Total indicator reading of filament cup terminal diameter (C) measured with respect to center of cathode and filament terminal diameter (B) - 0.016 inches.

TUBE DEPARTMENT

GENERAL ELECTRIC

Owensboro, Kentucky