

OBJECTIVE FOR DEVELOPMENTAL TYPE

Y-1236*

PLANAR TRIODE

The Y-1236 is a triode of ceramic and metal planar construction intended for use as a plate-pulsed oscillator at frequencies up to 4300 megacycles. In addition, it may be used as a CW oscillator at frequencies up to 2500 megacycles. Features of the Y-1236 are small size and high plate dissipation capability.

GENERAL

Electrical

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC+	6.3±0.3	Volts
Heater Current†	0.5	Amperes
Direct Interelectrode Capacitances‡		
Grid to Plate: (g to p)	1.5	pf
Input: g to (h+k)	5.0	pf
Output: p to (h+k)	0.05	pf

Mechanical

Operating Position - Any

Maximum Ratings

Absolute-Maximum ratings are limiting values of operating and environmental conditions applicable to any electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making no allowance for equipment variations, environmental variations, and the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration and of

all other electron devices in the equipment.

The equipment manufacturer should design so that initially and throughout life no absolute-maximum value for the intended service is exceeded with any tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

MAXIMUM RATINGS (Continued)

Absolute-Maximum Values

Plate-Pulsed Oscillator or Amplifier Service

Cathode Heating Time, minimum	60	Seconds
Peak Positive-Pulse Plate Supply Voltage	3000	Volts
Duty Factor of Plate Pulse \square	0.01	
Pulse Duration	2.0	Microseconds
Plate Current		
Average	20	Milliamperes
Average During Plate Pulse $\#$	2.0	Amperes
Negative Grid Voltage		
Average During Plate Pulse	100	Volts
Grid Current		
Average	10	Milliamperes
Average During Plate Pulse	1.0	Amperes
Plate Dissipation Δ	30	Watts
Peak Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	50	Volts
Heater Negative with Respect to Cathode	50	Volts
Envelope Temperature at Hottest Point	300	C

CW Oscillator Service

Plate Voltage	600	Volts
Plate Current	90	Milliamperes
Grid Current	30	Milliamperes
Cathode Current	120	Milliamperes
Plate Dissipations Δ	30	Watts
Peak Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	50	Volts
Heater Negative with Respect to Cathode	50	Volts
Envelope Temperature at Hottest Point	300	C

CHARACTERISTICS AND TYPICAL OPERATION

Average Characteristics

Plate Voltage	200	Volts
Cathode-Bias Resistor	100	Ohms
Amplification Factor	55	
Plate Resistance, approximate	2040	Ohms
Transconductance	27000	Micromhos
Plate Current	25	Milliamperes

Plate-Pulsed Oscillator Service

Frequency	1200	Megacycles
Heater Voltage	6.3	Volts
Duty Factor	0.01	
Pulse Duration	1.0	Microseconds
Pulse Repetition Rate	10000	Pulses per Second
Peak Positive-Pulse Plate Supply Voltage	2000	Volts
Plate Current		
Average	20	Milliamperes
Average During Plate Pulse	2.0	Amperes
Grid Current		
Average	∅	Milliamperes
Average During Plate Pulse	∅	Amperes
Useful Power Output		
Average	20	Watts
Average During Plate Pulse	2.0	Kilowatts

CW Oscillator Service

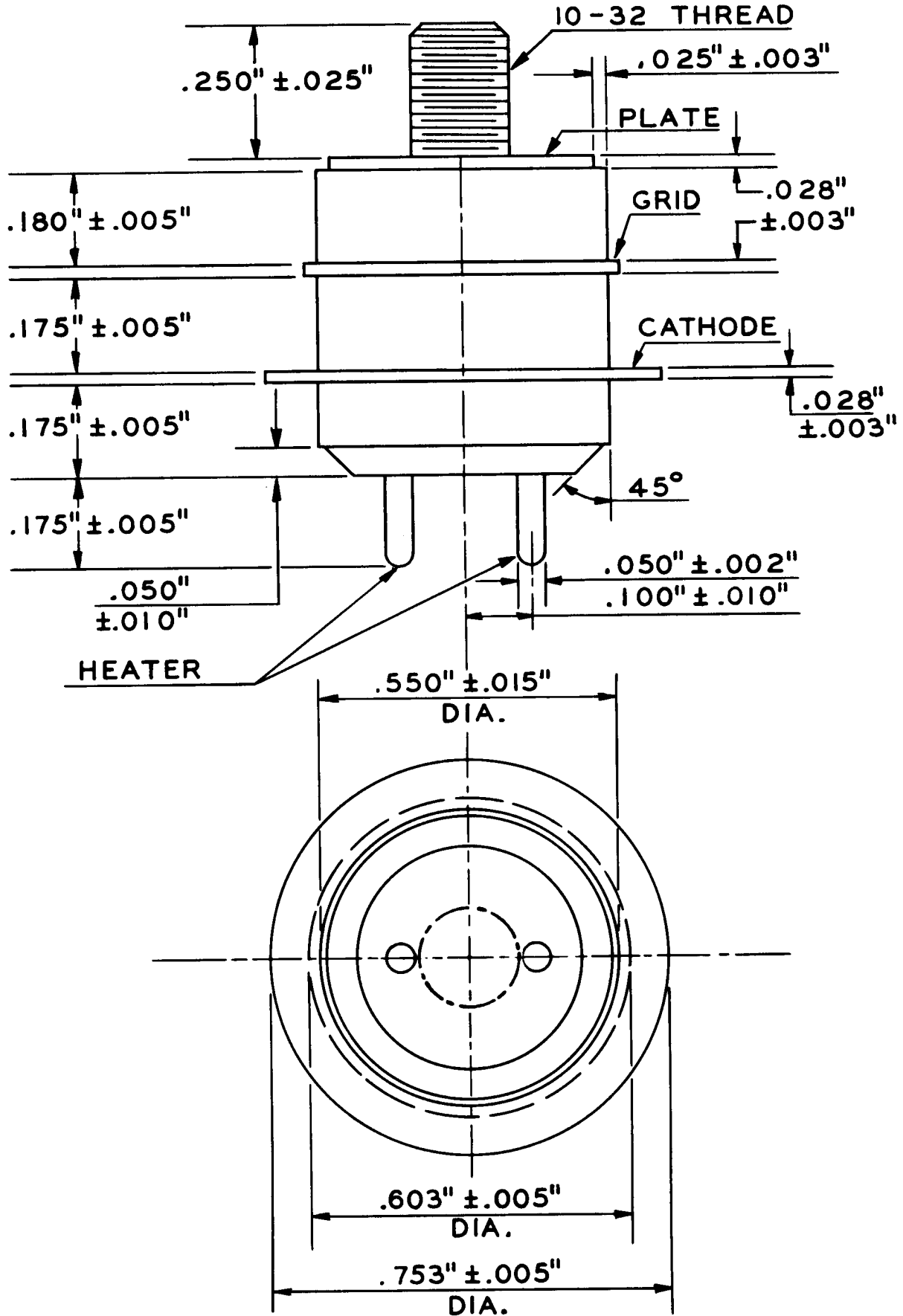
Frequency	2300	Megacycles
Plate Voltage	600	Volts
Grid Voltage	∅	
Plate Current	80	Milliamperes
Grid Current	25	Milliamperes
Power Output, approximate	20	Watts

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- * Publication of these data does not obligate the General Electric Company to manufacture a tube with these characteristics.
- + The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- ‡ Heater current of a bogey tube at $E_f = 6.3$ volts.
- § Measured using a grounded adapter that provides shielding between external terminals of tube.
- ¶ Applications with a duty factor greater than 0.01 should be referred to your General Electric tube sales representative for recommendation.
- # The regulation and/or series plate-supply impedance must be such as to limit the peak current, with the tube considered a short circuit, to a maximum of 25 amperes.
- Δ With adequate heat sink attached to threaded plate stud.
- ∅ To be determined.

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TUBE DEPARTMENT
GENERAL  **ELECTRIC**
Owensboro, Kentucky