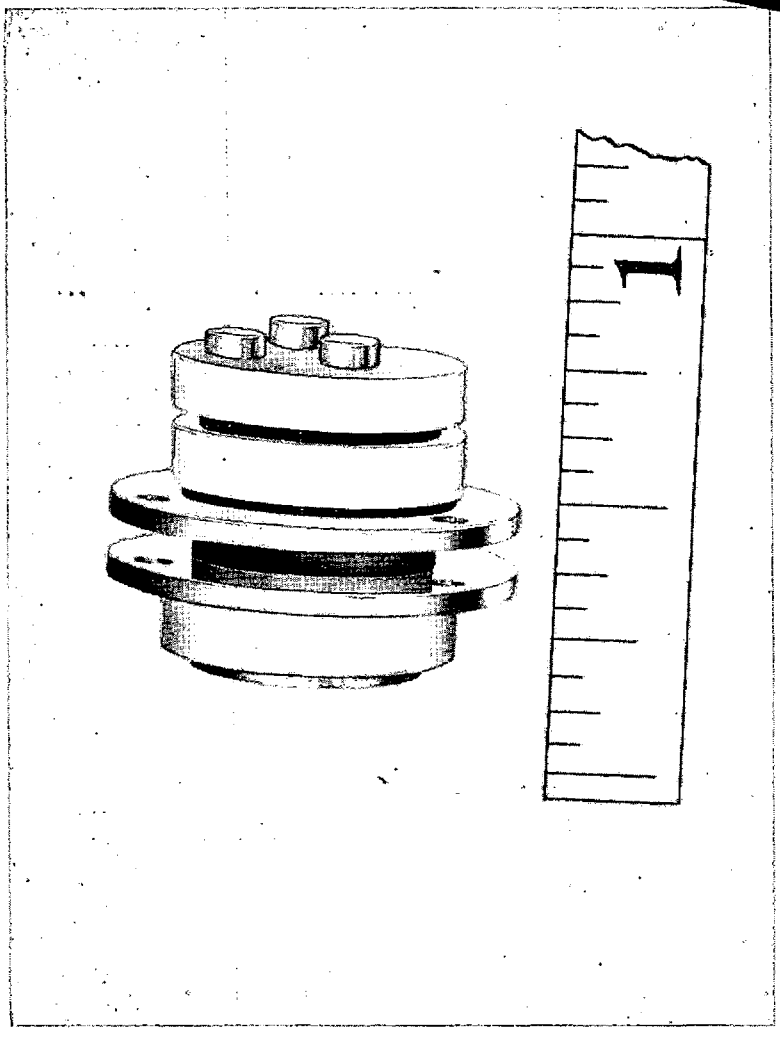


VOLTAGE-TUNABLE MAGNETRON

METAL AND CERAMIC
POWER OUTPUT—10 WATTS
2000-4000 MEGACYCLES
VOLTAGE-TUNED OVER FREQUENCY RANGE

The GL-6917 is a CW interdigital voltage-tunable magnetron for operation in the 2000-to-4000-megacycle range. In a narrow-band circuit, this tube has a power output up to 10 watts. In a circuit covering 2000 to 4000 megacycles, it has a power output up to 1.0 watt.

A novel ceramic-to-metal seal construction results in a tube extremely small in size—⅝ inch long and ¾ inch in diameter—and one which is particularly suitable for operation at microwave frequencies.

The GL-6917, in an external r-f circuit, may be voltage-tuned over a portion or all of the frequency range for which it is designed. The frequency of the generated signal is a linear function of the anode voltage. The r-f power output at any frequency is a function of the impedance of the external r-f circuit.

from JETEC release #1989, Aug. 5, 1957

Electrical

	Minimum	Bogey	Maximum	
Cathode—Directly Heated				
Filament Voltage*	2.0	2.25	2.5	Volts
Filament Current*	...	3.0	...	Amperes
Direct Interelectrode Capacitances				
Anode to Anode			4.9	μμf
Both Anodes to Filament			1.3	μμf
Both Anodes to Injection Electrode			2.9	μμf
Both Anodes to Cold Cathode			3.3	μμf

Mechanical

Mounting Position—Any

Thermal

Type of Cooling—Forced Air

Envelope Temperature, maximum	150	C

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values

Anode Voltage	2500	Volts
Anode Current	40	Milliamperes
Power Input, with forced-air cooling	60	Watts
Injection Electrode Voltage	500	Volts
Control Electrode Current	1.0	Milliamperes
Filament Current	3.2	Amperes
Voltage Standing Wave Ratio	1.5	

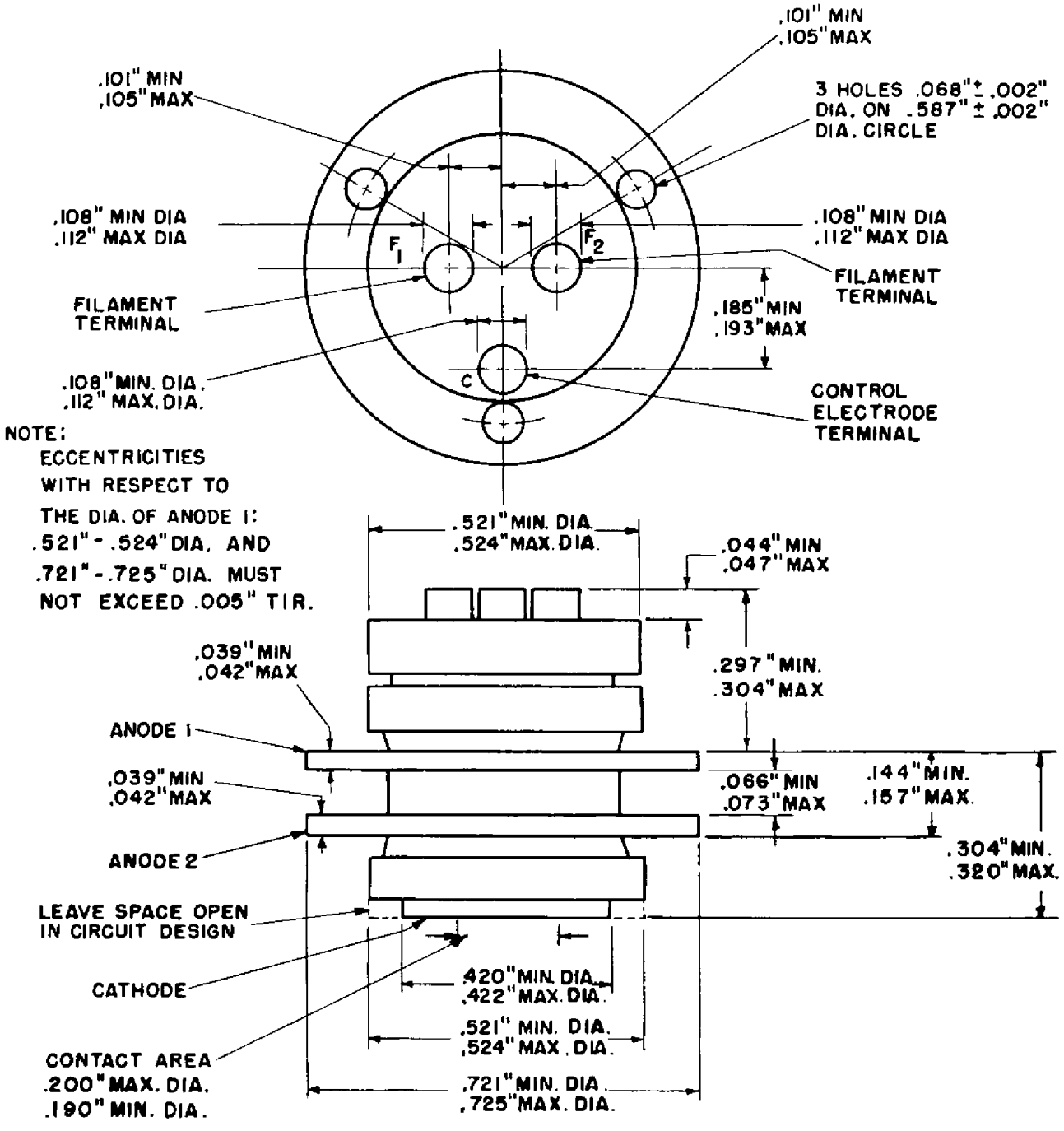
Typical Operating Conditions

Operation with 60-Cycle Sweep Voltage in a Wide-Band Circuit

Tunable Range†	2000 to 4000	Megacycles
Magnetic Field Strength	2500 ± 50	Gausses
Tuning Rate, approximate	3.0	Megacycles per Volt
Filament Voltage, approximate*	2.25	Volts
Filament Current*	3.0	Amperes
Anode Voltage at 3 Kilomegacycles, 2500 gausses	1150	Volts
Anode Current, average	10 to 20	Milliamperes
Injection Electrode Voltage, positive with respect to cathode	300 to 500	Volts
Control-Electrode Current	0.1	Milliamperes
Voltage Standing Wave Ratio	1.3	
Power Output, average	0.5 to 1.0	Watts

* Filament current should be adjusted to 3.0 amperes.

† Frequency controlled by anode voltage.



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