

**OBJECTIVE
 TECHNICAL INFORMATION**

These ratings represent the design objective for this tube.

DEVELOPMENTAL
 TYPE

Z-5321
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This technical information is considered to be proprietary and is furnished as a service to customers for their private use only

PACKAGED VOLTAGE-TUNABLE MAGNETRON

The Z-5321 is a packaged voltage-tunable magnetron designed for voltage-tunable operation in the 2900 to 3100 megacycle frequency range. A complete r-f power source package requiring only input power connections and an r-f power output connection. The Z-5321 has a minimum CW power output of 10 watts across the entire frequency range. The tube may be voltage tuned over a portion or all of the frequency range for which it is designed.

GENERAL

Electrical

Cathode - Directly Heated

Filament Voltage *. 2.6 Volts

Filament Current *. 3.0 Amperes

Mechanical

Mounting Position - Any

Net Weight. 3.1 Pounds

Thermal

Type of Cooling - Forced Air. 30 Cubic Ft. per Minute

Ambient Air Temperature 50 C

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values

Anode Voltage 2000 Volts

Anode Current 40 Milliamperes

Power Input, with forced-air cooling. 60 Watts

Injection Electrode Voltage - See page 2. 500 Volts

Filament Current. 3.2 Amperes

Typical Operating Conditions

Operation with 60-cycle Sweep Voltage

Tunable Range + ... 2900 - 3100 Megacycles

Tuning Rate, approximate. 2.0 Megacycles per Volt

Filament Voltage *, approximate 2.60 Volts

Filament Current. 3.0 Amperes

Anode Voltage at 3.0 Kilomegacycles 1250 Volts

Anode Current, average. 16 - 20 Milliamperes

Voltage Standing Wave Ratio of Load 1.3

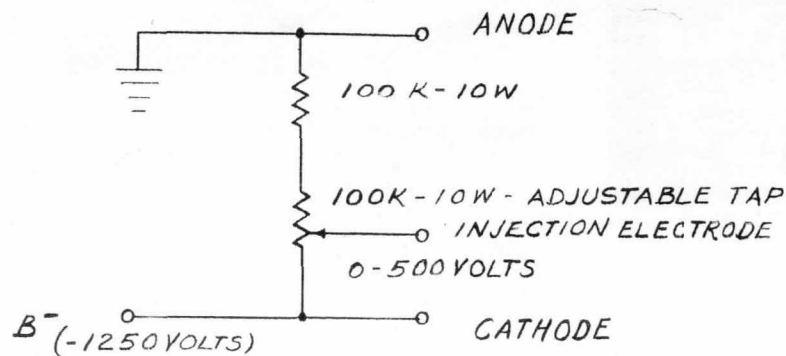
Power output, minimum 10 Watts

* Filament current should be adjusted to 3.0 amperes.

+ Frequency controlled by anode voltage.

CAUTION: KEEP FERROUS MATERIAL AND MAGNETS AT LEAST 9 INCHES AWAY FROM PACKAGE.

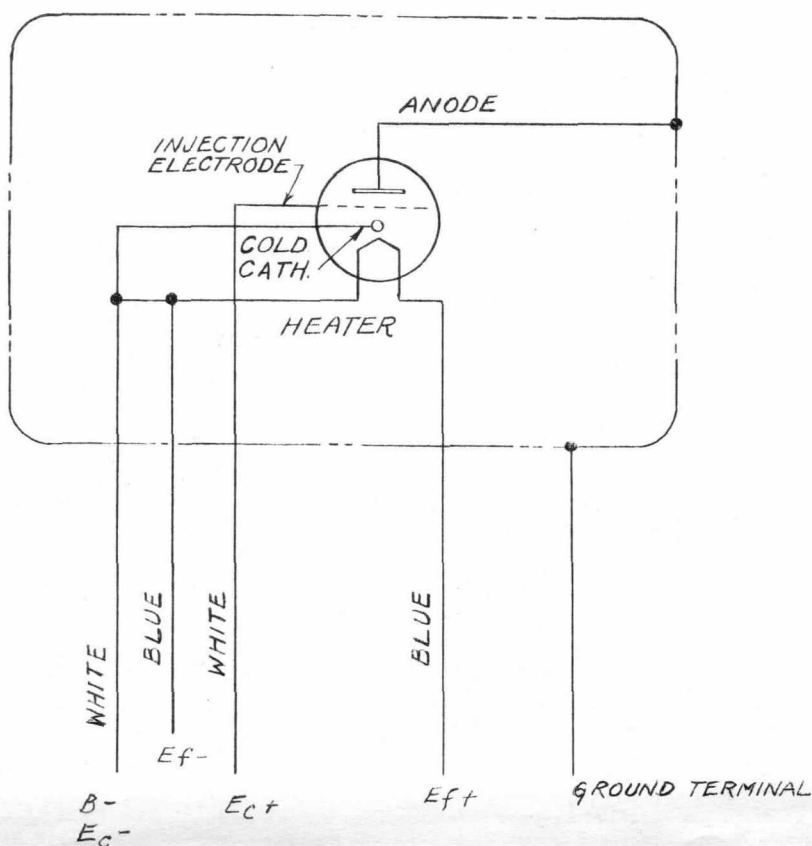
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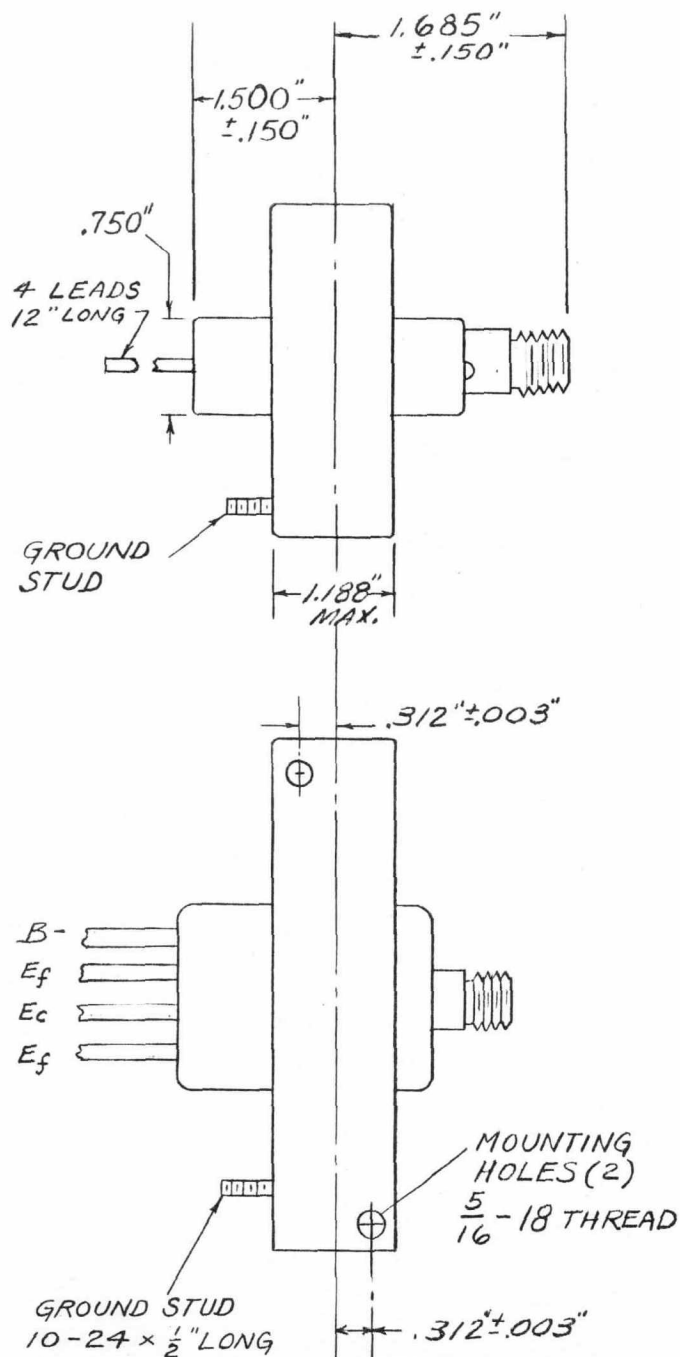


DIVIDER NETWORK FOR INJECTION ELECTRODE SUPPLY

The injection electrode voltage may be obtained through a separate d-c supply (0-500 volts) referenced to the cathode (B⁻), or by means of a divider network across the B⁻ supply with resistance values adjusted to bring the injection electrode voltage within the proper range.

ELECTRODE CONNECTION DIAGRAM





BOTTOM VIEW

