

These ratings represent the design objective for this tube.

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PACKAGED VOLTAGE-TUNABLE MAGNETRON

The Z-5360 is a packaged-voltage-tunable magnetron designed for voltage-tunable operation in the 2800 to 3500 megacycle frequency range. A complete r-f power source package requiring only input power connections and an r-f power output connection it has a minimum CW power output of 100 milliwatts 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. 3.5 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 note on page 2

Filament Current. 3.2 Amperes

Voltage Standing Wave Ratio¹ - Infinity

Typical Operating Conditions

Operation with 60-cycle Sweep Voltage

Tunable Range ¹ 2800 - 3500 Megacycles

Tuning Rate, approximate 2.6 Megacycles per Volt

Filament Voltage *, approximate 2.60 Volts

Filament Current. 3.0 Amperes

Anode Voltage at 3.2 Kilomegacycles 1250 Volts

Voltage Standing Wave Ratio of Load 1.3

Power Output, minimum 100 Milliwatts

AM Noise ξ - Adjusted for Minimum

FM Noise ξ - Adjusted for Minimum

Anode Current, average 10 - 20 Milliamperes

* Filament current should be adjusted to 3.0 amperes.

¹ This type has approximately 9 decibels integral attenuation in the output circuit to isolate load effects.

*Frequency controlled by anode voltage.

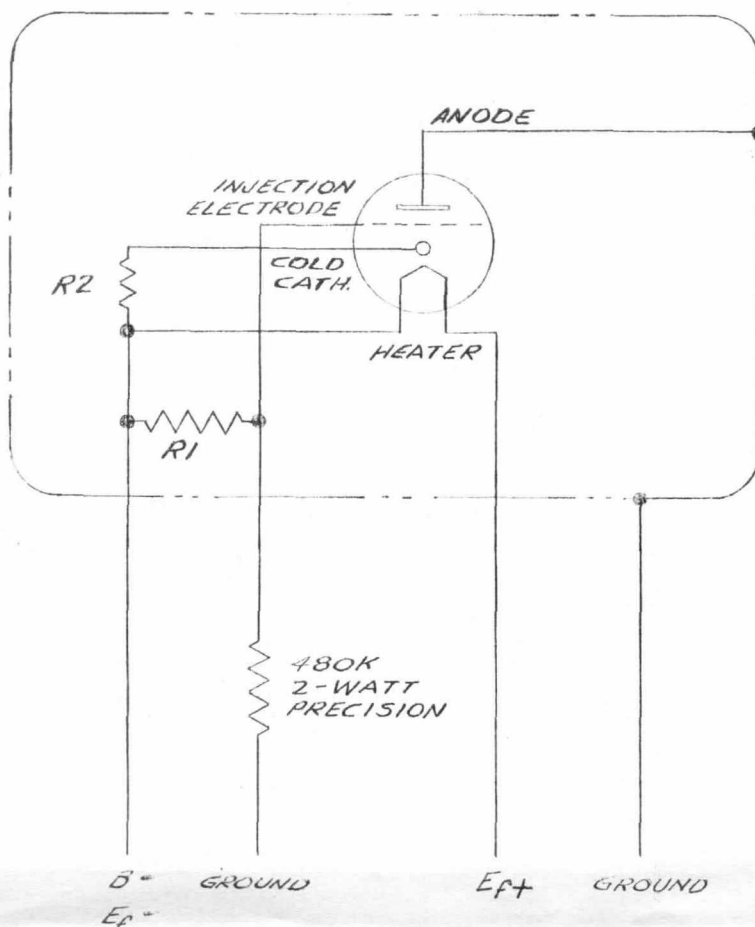
§ The AM and FM noise is measured using the tube as the local oscillator of a receiver having a bandwidth of 100 megacycles around the carrier and is adjusted to be at least 55 decibels below the carrier.

NOTE: Since a change in anode voltage of one volt produces a frequency change of approximately 2.6 megacycles, it is necessary that the ripple voltage of the anode supply be small enough so as not to cause an excess of undesirable frequency modulation.

The injection electrode voltage is obtained through a divider consisting of R_1 and a required external resistor of 480,000 ohms and 2 watts, precision wound (See d-c connector drawing). R_1 and R_2 are an integral part of the voltage-tunable magnetron package.

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

DC CONNECTIONS



FEMALE CONNECTOR MATES
 WITH UG-88 9/U

