

OBJECTIVE FOR DEVELOPMENTAL TYPE

Z-5267*

PLANAR TETRODE

The Z-5267 is a planar tetrode primarily designed for grounded-grid radio-frequency power amplifier or oscillator service at frequencies to 3000 mc and beyond.

The Z-5267 combines small interelectrode spacings with a thermally stable electrode structure and low lead inductance. The envelope and electrode terminals are designed for efficient utilization of cavity resonators at the higher frequencies and of line-type and lumped-constant circuits at the lower frequencies.

GENERAL

Electrical

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC+	6.3±0.3	Volts
Heater Current‡	1.9	Amperes
Cathode Heating Time, minimum	2	Minutes
Direct Interelectrode Capacitances, approximate§		
Grid-Number 2 to Plate	4	pf
Grid-Number 1 to Cathode	18	pf
Grid-Number 1 to Grid-Number 2	30	pf

Mechanical

Mounting Position - Any

Net Weight, approximate 4 Ounces

→ Envelope Temperature, maximum 300 C

Cooling-Forced Air

MAXIMUM RATINGS

Absolute-Maximum Values

Radio-Frequency Power Amplifier and Oscillator - Class C Telegraphy

DC Plate Voltage	1000	Volts
DC Screen Voltage	325	Volts
DC Grid-Number 1 Voltage	-20	Volts
DC Plate Current	175	Milliamperes
DC Grid-Number 1 Current	35	Milliamperes
DC Cathode Current	200	Milliamperes
Plate Input	175	Watts
Plate Dissipation	140	Watts
Screen Dissipation	3.0	Watts

Pulsed Operation

Ratings have not been determined. As a guide, peak plate voltages up to 3 kilovolts and peak cathode currents up to 7.5 amperes may be considered, depending upon duty cycle. For grid-pulsed operation care should be taken that the maximum screen dissipation is not exceeded. The screen may be pulsed up to 800 volts positive.

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.

CHARACTERISTICS AND TYPICAL OPERATION

Average Characteristics

Plate Voltage	1000	Volts
Screen Voltage	300	Volts
Grid-Number 1 Voltage	-1.2	Volts
Transconductance	60000	Micromhos
Amplification Factor (G_1 to G_2)	60	
Plate Current	160	Milliamperes

Radio-Frequency Power Amplifier - 3000 Megacycles

DC Plate Voltage	1000	800	800	Volts
DC Screen Voltage	300	250	250	Volts
DC Grid-Number 1 Voltage	-6.0	-3.0	-2.0	Volts
DC Plate Current	160	160	160	Milliamperes
DC Screen Current	8.0	6.0	7.0	Milliamperes
DC Grid-Number 1 Current, approximate	25	10	8	Milliamperes
Driving Power, approximate	7	2.3	0.8	Watts
Useful Power Output, approximate	40	20	10	Watts
Bandwidth, approximate	25	---	---	Megacycles

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- * Publication of these data does not obligate the General Electric Company to manufacture a tube with these characteristics.
- + Lower voltages may be used to improve the life at low-cathode-current levels. For specific recommendations, contact your General Electric tube sales representative.
- ‡ Heater current of a bogey tube at $E_f = 6.3$ volts.
- § Without external shield.

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