



**ELECTRONIC
INNOVATIONS**
IN ACTION

MICROWAVE DEVICES

—PRODUCT INFORMATION—

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GE12661

Planar Triode

The GE12661 is a planar triode of ceramic-metal construction primarily intended for use as a long life power oscillator. This tube is designed to perform in applications requiring high current densities at lower voltages, with a low input to grid-plate capacitance ratio to provide extra feedback in self excited oscillators.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

	Minimum	Bogey	Maximum	Units	Test Conditions				
					Ef V	Eb V	Ib Ma	Eg V	Rk Ohms
Heater Voltage, AC or DC *	6.0	6.3	6.6	Volts					
Heater Current	222	240	258	Milliamperes	6.3	---	---	---	---
Plate Current	18	25	32	Milliamperes	6.3	150	---	0	---
Amplification Factor	30	40	50		6.3	150	---	0	---
Transconductance	6500	8500	---	Micromhos	6.3	150	---	0	---
Grid Voltage, Cutoff	---	-5	-8	Volts	6.3	150	0.1	---	---
Direct Interelectrode Capacitances •									
Grid to Plate: (g to p)	1.15	1.35	1.55	pf					
Input: g to (h+k)	1.3	1.6	1.9	pf					
Output: p to (h+k)	---	0.015	0.023	pf					
Cathode Heating Time	60	---	---	Seconds					

UHF OSCILLATOR SERVICE

Frequency	450	Megahertz
DC Plate Voltage	300	Volts
Grid Resistor	Adjusted	
Plate Current	30	Milliamperes
Grid Current	10	Milliamperes
Power Output	6	Watts

NOTES

- * 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.
- Measured at 450 KHz using a grounded adapter that provides shielding between external terminals of tube.

GENERAL  ELECTRIC

MAXIMUM RATINGS**ABSOLUTE-MAXIMUM VALUES**

Plate Voltage	350	Volts
Positive DC Grid Voltage	0	Volts
Negative DC Grid Voltage	50	Volts
Plate Dissipation	4	Watts
DC Grid Current	15	Milliamperes
DC Cathode Current	40	Milliamperes
Peak Cathode Current	120	Milliamperes
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	50	Volts
Heater Negative with Respect to Cathode	50	Volts
Grid Circuit Resistance	10000	Ohms
Envelope Temperature at Hottest Point ▲	250	°C
Temperature Differential Between Two Adjacent Electrodes ♦	75	°C
Mechanical Vibration (20-2000 Hz Sinusoidal)	10	G Peak

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

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

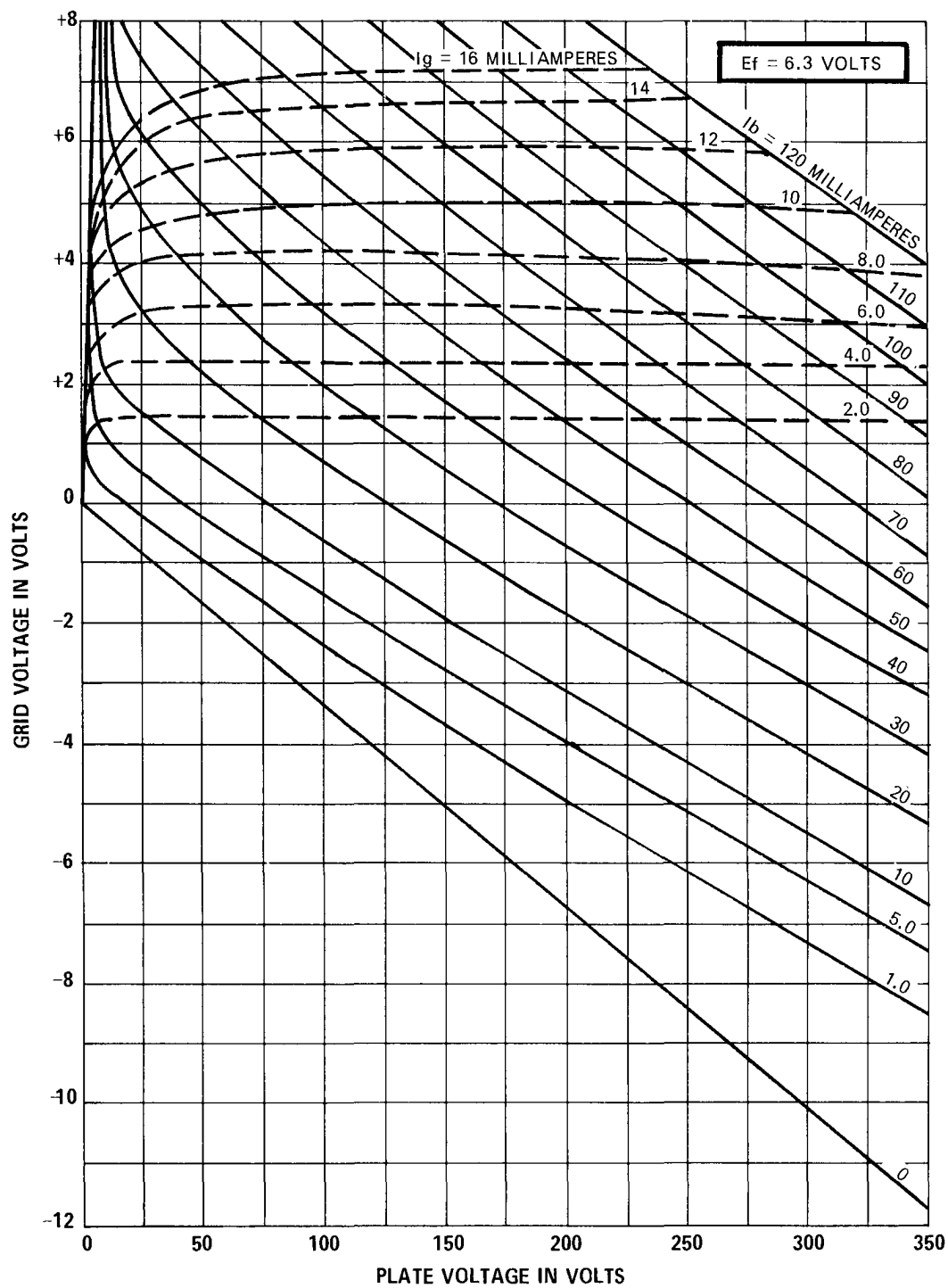
NOTES

- ▲ For specific recommendations concerning higher temperature operation, contact your General Electric sales representative.
- ♦ This assumes no thermal heat sinking to any insulator.

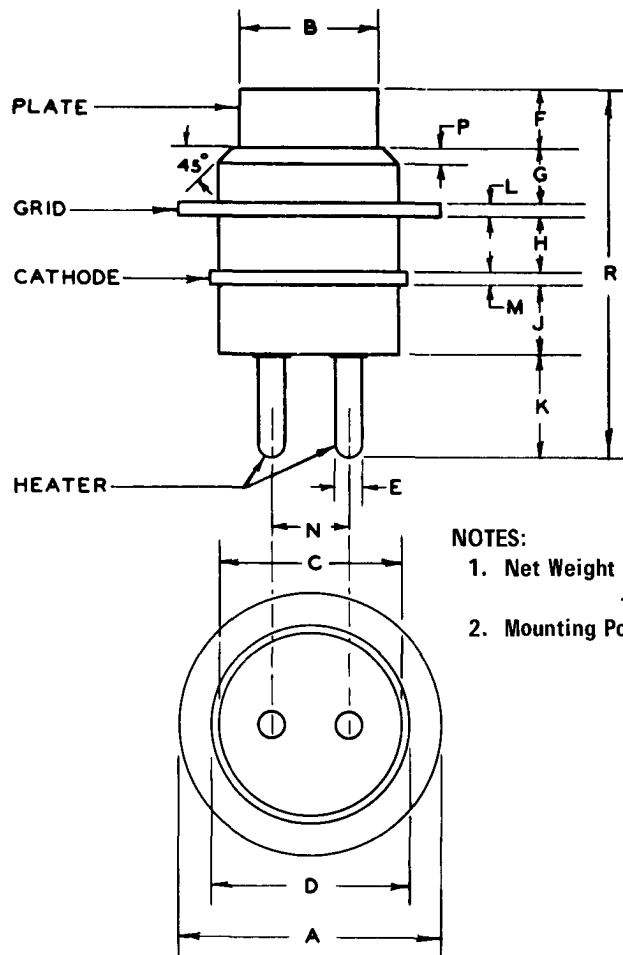
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AVERAGE CONSTANT-CURRENT CHARACTERISTICS



PHYSICAL DIMENSIONS



NOTES:

1. Net Weight - 0.07 Ounces
- 1.99 Grams
2. Mounting Position - Any

Ref.	INCHES			MILLIMETERS		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.477	0.480	0.483	12.12	12.19	12.27
B	0.246	0.250	0.254	6.248	6.350	6.452
C	---	---	0.330	---	---	8.382
D	0.357	0.360	0.363	9.068	9.144	9.220
E	0.048	0.050	0.052	1.219	1.270	1.321
F	0.092	0.100	0.108	2.337	2.540	2.743
G	0.095	0.099	0.103	2.413	2.515	2.616
H	0.094	0.098	0.102	2.388	2.489	2.591
J	0.143	0.150	0.157	3.632	3.810	3.988
K	0.165	0.175	0.185	4.191	4.445	4.699
L	0.025	0.028	0.031	0.635	0.711	0.787
M	0.025	0.028	0.031	0.635	0.711	0.787
N	0.130	0.136	0.142	3.302	3.454	3.607
P	---	0.030	---	---	0.762	---
R	0.614	0.650	0.686	15.60	16.51	17.42

TUBE PRODUCTS DEPARTMENT

GENERAL  ELECTRIC

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