Planar Triode

GE15371

The GE15371 is a metal-ceramic planar triode intended for plate-pulse oscillator and amplifier service.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

	Minimum	Bogey	Maximum	Units	Test Conditions Ef V	Eb V	Ib Ma	RL Ohms	Rk Ohms
Heater Voltage, AC or DC*	6.0	6.3	6.6	Volts					
Heater Current	465	500	535	Milliamperes	6.3	---	---	---	---
Plate Current	12	17	22	Milliamperes	6.3	200	---	---	100
Amplification Factor	65	85	105		6.3	200	---	---	100
Transconductance	17000	22000	27000	Micromhos	6.3	200	---	---	100
Grid Voltage, Cutoff	---	---	-25	Volts	6.3	1000	0.3	47000	---
Direct Interelectrode Capacitances•									
Grid to Plate: (g to p)	1.6	1.9	2.2	pf					
Input: g to (h+k)	3.8	5.0	6.2	pf					
Output: p to (h+k)	---	0.035	0.05	pf					
Cathode Heating Time	60	---	---	Seconds					

PLATE-PULSED OSCILLATOR SERVICE

Frequency	1090	Megahertz
Duty Factor	0.001	
Pulse Duration	1	Microsecond
Pulse Repetition Rate	1000	Pulses Per Second
Peak Positive-Pulse Supply Voltage	1800	Volts
Plate Current: Average During Pulse	1.5	Amperes
Grid Current: Average During Pulse	0.5	Amperes
Power Output: Average During Pulse	700	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. In some applications, longer tube life may be obtained at reduced heater voltage. For specific recommendations, contact your General Electric sales representative.

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

ABSOLUTE-MAXIMUM RATINGS

PLATE-PULSED OSCILLATOR SERVICE

Peak Positive-Pulse Plate Supply Voltage		
1 Microsecond Pulse Duration	2000	Volts
4 Microsecond Pulse Duration	1500	Volts
Duty Factor of Plate Pulse §	0.002	
Plate Current: Average During Pulse ⊕	2.0	Amperes
Negative Grid Voltage: Average During Pulse	100	Volts
Grid Current: Average During Pulse	0.8	Amperes
Plate Dissipation □	10	Watts
Peak Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	50	Volts
Heater Negative with Respect to Cathode	50	Volts
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

§ In any 5 millisecond interval.

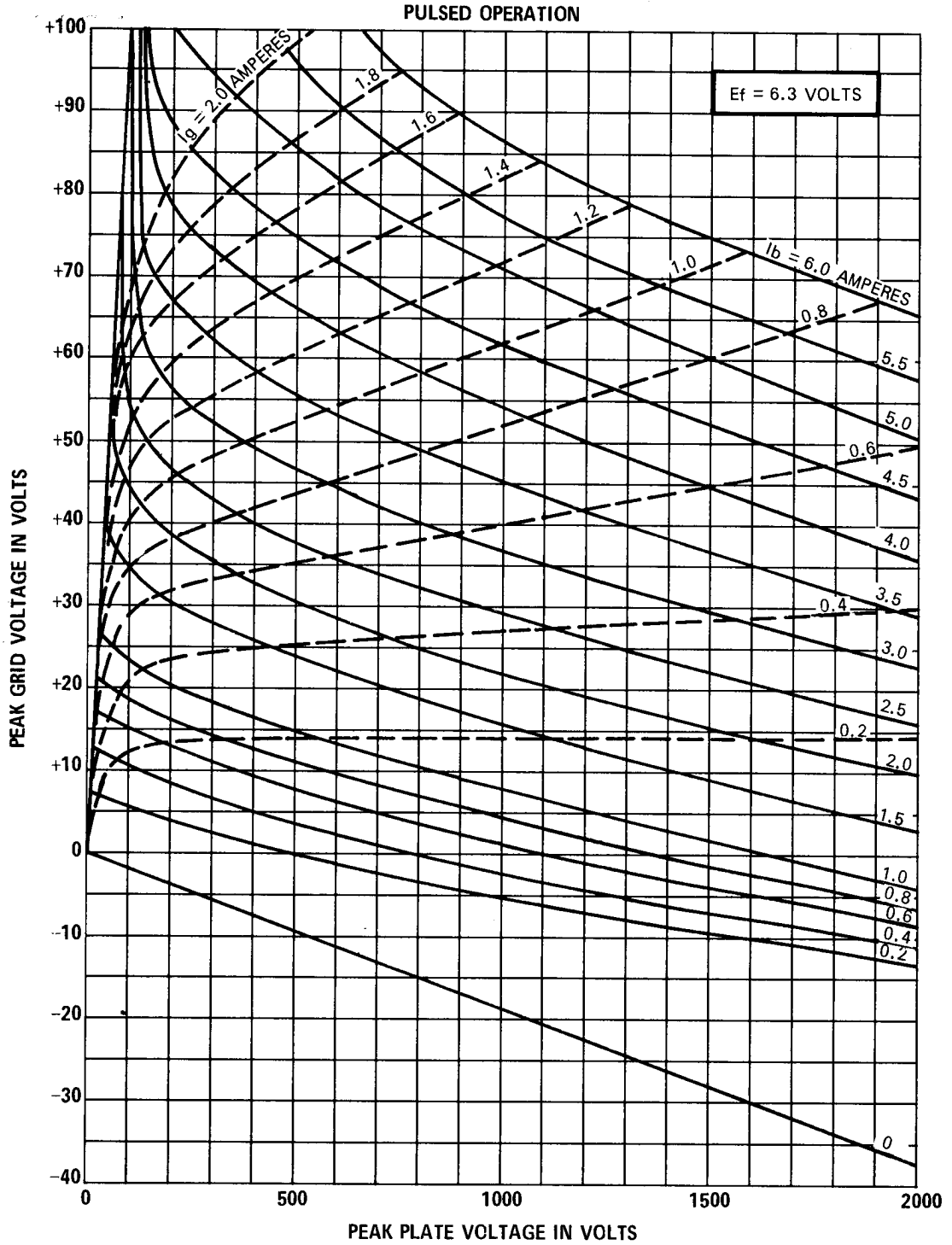
⊕ The regulation and/or series plate supply impedance must be such as to limit the peak current, with the tube considered a short circuit, to a maximum of 10 times the maximum plate current rating.

□ With adequate heat sink.

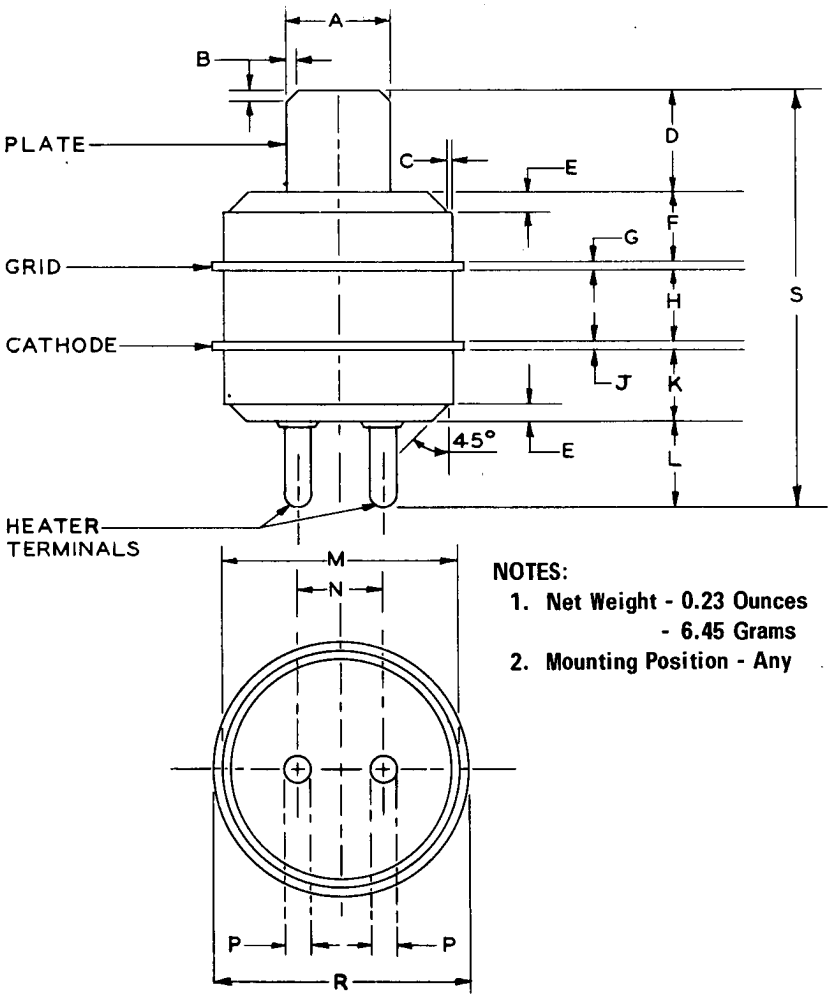
▲ For specific recommendations concerning higher temperature operation, contact your General Electric sales representative.

♦ This assumes no thermal heat sinking to any insulator.

AVERAGE CONSTANT-CURRENT CHARACTERISTICS



PHYSICAL DIMENSIONS



NOTES:

1. Net Weight - 0.23 Ounces
   - 6.45 Grams
2. Mounting Position - Any

Ref.	INCHES			MILLIMETERS		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.245	0.250	0.255	6.223	6.350	6.477
B	---	0.030	---	---	0.762	---
C	---	0.005	---	---	0.127	---
D	0.245	0.250	0.255	6.223	6.350	6.477
E	0.040	0.050	0.060	1.016	1.270	1.524
F	0.145	0.150	0.155	3.683	3.810	3.937
G	0.025	0.028	0.031	0.635	0.711	0.787
H	0.167	0.172	0.177	4.242	4.343	4.496
J	0.025	0.028	0.031	0.635	0.711	0.787
K	0.170	0.175	0.180	4.318	4.445	4.572
L	0.170	0.175	0.180	4.318	4.445	4.572
M	0.535	0.550	0.565	13.59	13.97	14.35
N	0.185	0.200	0.215	4.699	5.089	5.461
P	0.047	0.050	0.053	1.184	1.270	1.346
R	0.598	0.603	0.608	15.19	15.32	15.44
S	0.947	0.978	1.009	24.05	24.84	25.63

TUBE PRODUCTS DEPARTMENT

GENERAL ELECTRIC

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