

# GS-36b

## Tetrode

The GS-36B tetrode is designed for power amplification in distributed-gain amplifiers and single-sideband signal amplifiers at frequencies up to 75 MHz, and for power amplification at up to 500 MHz in RF equipment. The GS-36b tetrode is generally considered to be similar to the 4CX400A.

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### GENERAL

Cathode: indirectly heated, dispenser, oxide-coated.

Envelope: metal-ceramic.

Cooling: forced air.

Height, mm, at most:

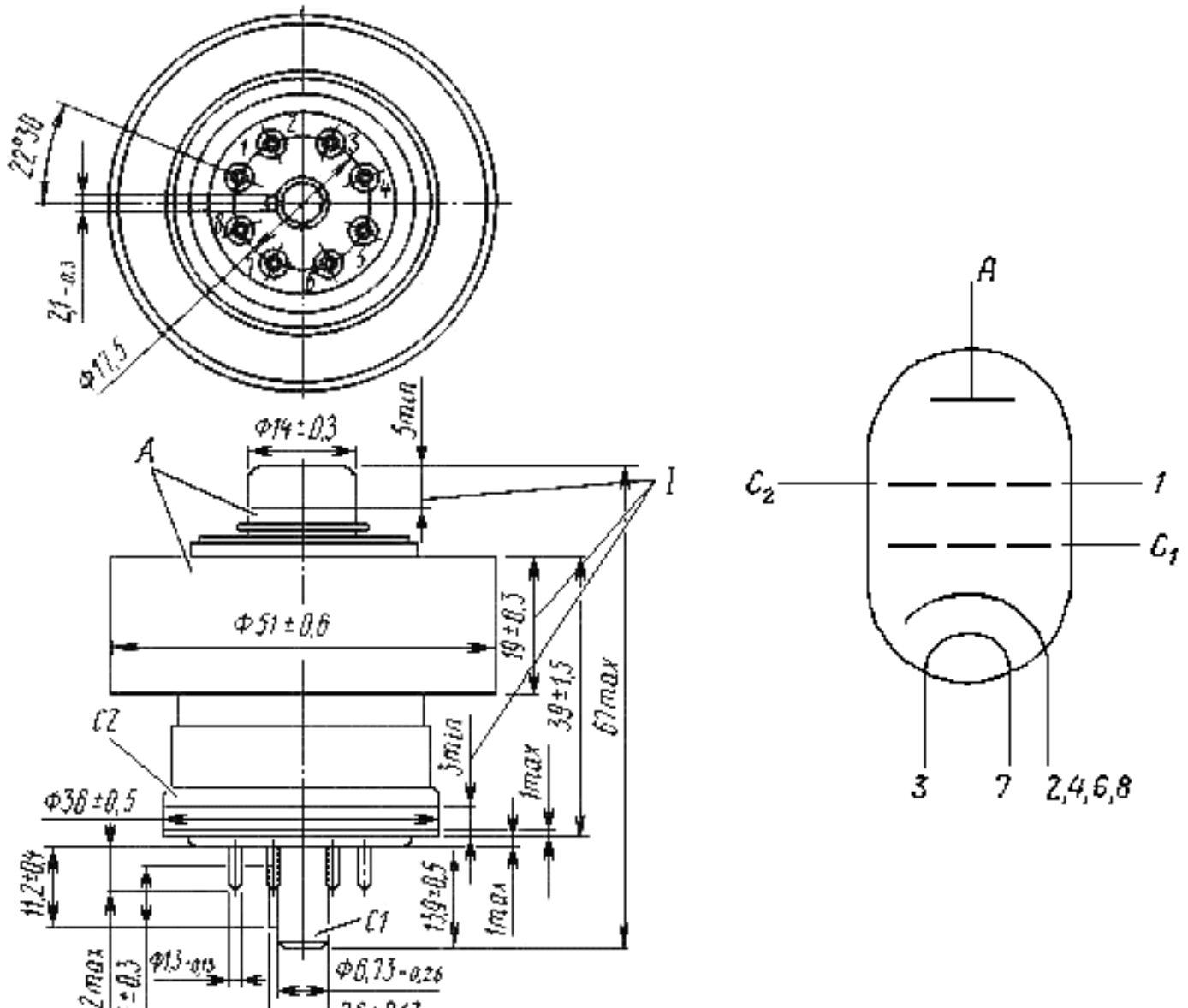
67

Diameter, mm, at most:

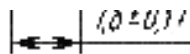
51

Mass, gm, at most

220



451901



A - anode; I - contact surfaces; C1 - grid 1; 1 & C2 - grid 2; 2, 4, 6, 8 - cathode; 3, 7 - heater

## ENVIRONMENTAL OPERATING CONDITIONS

Vibration loads:	
frequency, Hz	1-600
acceleration, m/s <sup>2</sup>	100
Multiple impacts with acceleration, m/s <sup>2</sup>	400
Single impacts with acceleration, m/s <sup>2</sup>	1,500
Linear loads with acceleration, m/s <sup>2</sup>	25
Ambient Conditions:	
Temperature, ° C	-60 to +85
Relative humidity at up to +35 ° C, %	98

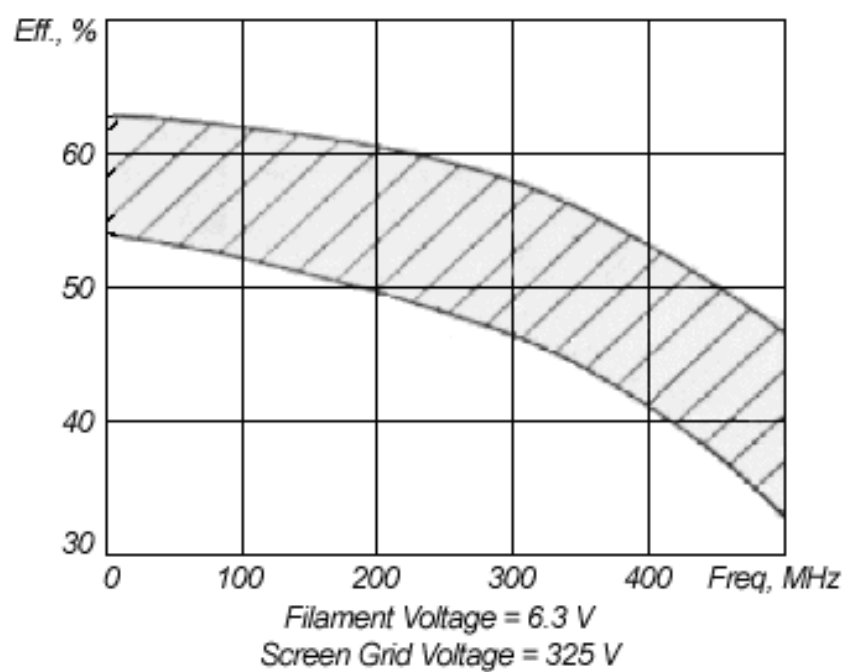
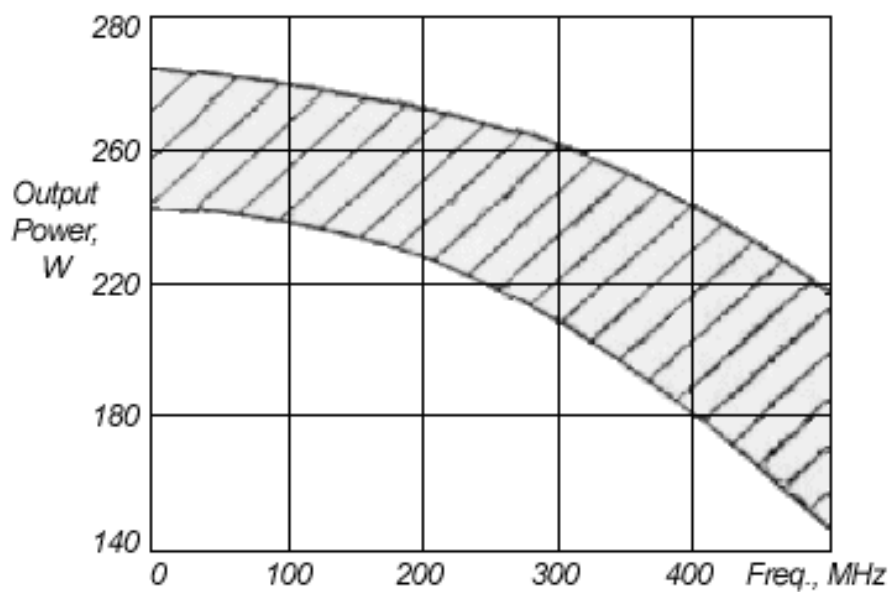
## NOMINAL ELECTRICAL PARAMETERS

Heater voltage, V	6.3
Heater current, A	2.15
Mutual conductance ( $V_a = 1KV$ , $V_{g2} = 325V$ , $I_a = 400mA$ , change in $V_{g1} = 2.5V$ ), mA/V:	26
Anode current ( $I_a$ ) with $V_a = 350V$ , $V_{g2} = 325V$ , A:	>0.4
Negative bias ( $V_{g1}$ ) with $V_a = 1KV$ , $V_{g2} = 325V$ , $I_a = 400mA$ , V:	7-22
Negative cutoff bias ( $V_{g1}$ ) with $V_a = 2KV$ , $V_{g2} = 325V$ , $I_a = 20mA$ , V:	60
input capacitance, pF	24
output capacitance, at most, pF	7
transfer capacitance, pF	<0.08
Warm up time, s:	<90
AB <sub>1</sub> Output power, $V_a = 2KV$ , $I_a < 25mA$ , $V_{g2} = 325V$ , $I_{g1} < 2 \times 10^{-3}$ mA, Freq. 0.1-1.0 MHz, W:	>250
3rd-order energy relative to carrier, $V_a = 2KV$ , $V_{g2} = 325V$ , dB:	-30
5th-order energy relative to carrier, $V_a = 2KV$ , $V_{g2} = 325V$ , dB:	-30
Designed Tube Life (hours)	>1000

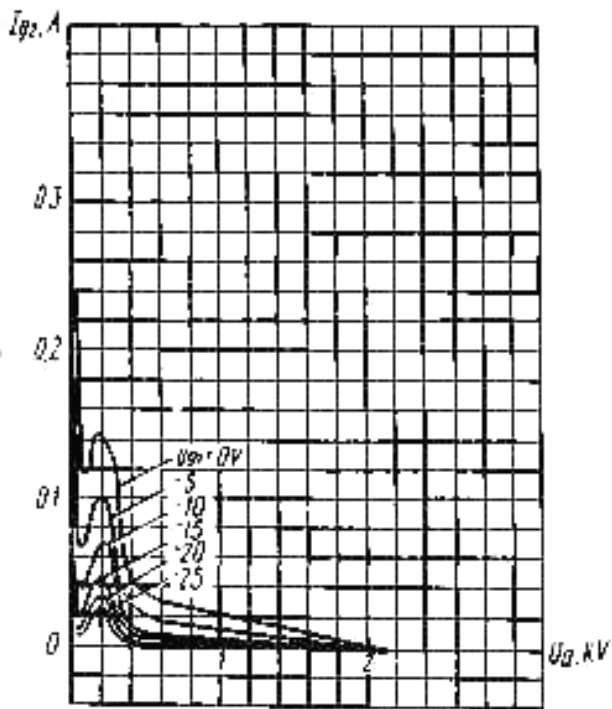
## ELECTRICAL PARAMETER LIMITS

Heater voltage, V	6-6.6
Heater current, A	2.95-3.35
input capacitance, pF	18-30
output capacitance, pF	5-9
Maximum CW Anode voltage ( $V_a$ ), KV:	2.1
Maximum Instantaneous value Anode voltage ( $V_a$ ), KV:	4
"Maximum" Control Grid voltage ( $V_{g1}$ ), V	-60
Maximum Screen Grid voltage ( $V_{g2}$ ), V	325
CW cathode current ( $I_c$ ), A:	0.4
Anode Dissipation, W:	400
Screen Grid (G2) Dissipation, W:	8
Control Grid (G1) Dissipation, W:	0.2

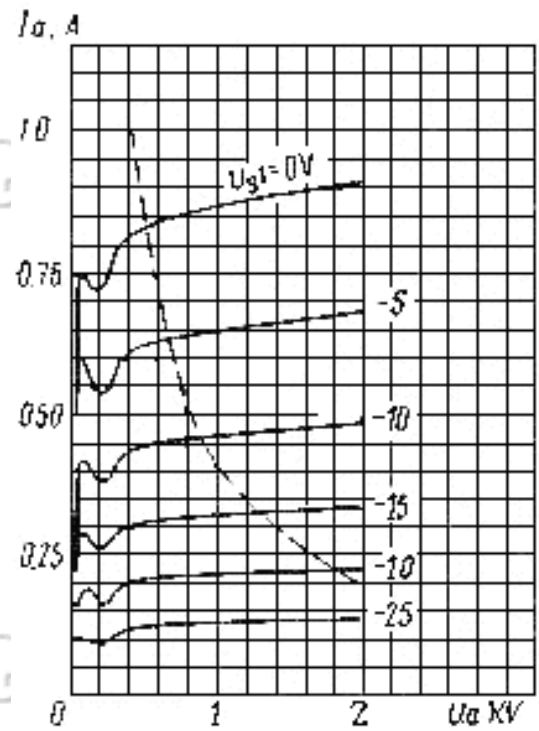
Temperature at envelope (hottest point), °C	200
Frequency, MHz:	<500



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Averaged Anode Characteristic Curves:  
 $U_f = 6.3V$ ;  $U_{g2} = 325V$



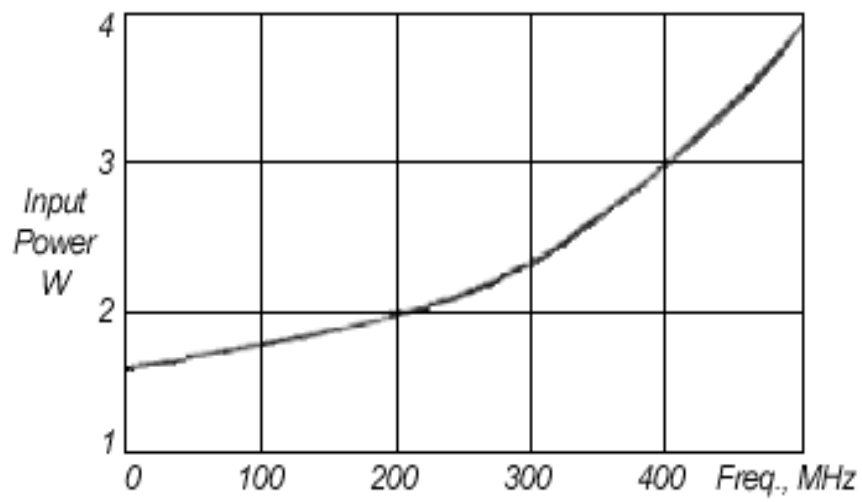
Averaged Anode Characteristic Curves:  
 $U_f = 6.3V$ ;  $U_{g2} = 325V$ ;  
 ———  $I_a$ ; - - - -  $P_{a\ max}$

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Filament Voltage = 6.3 V  
Screen Grid Voltage = 325 V

