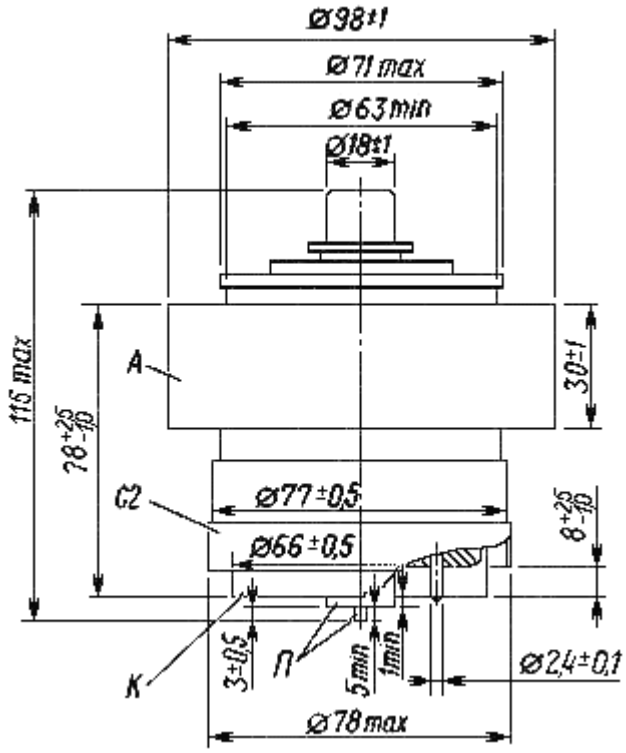
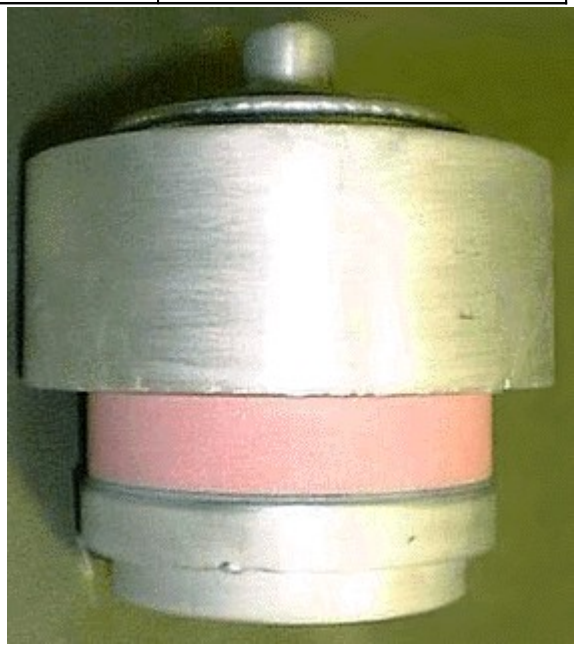
GU-84b

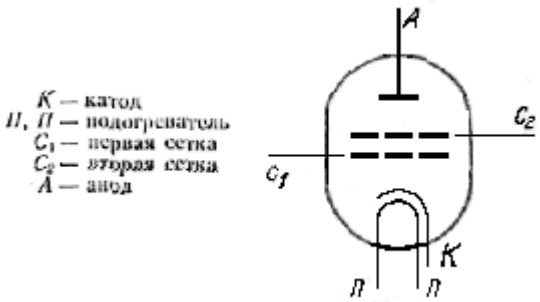
Tetrode

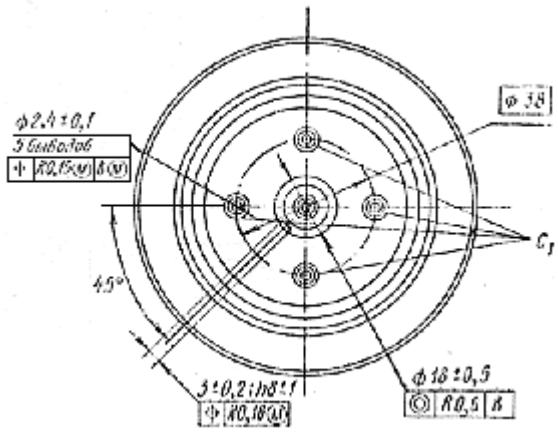
The GU-84B tetrode is used for power amplification in traveling-wave and single-sideband signal amplifier circuits and as power amplifiers in RF equipment up to 250MHz.

GENERAL	
Cathode: indirectly heated, oxide-coated.	
Envelope: metal ceramic.	
Cooling: forced air - 96 m^3 / hr (just under 57 CFM) at 30mm H2O for 1600W dissipation	
Height, mm, at most:	115
Diameter, mm, at most:	99
Mass, Kg, at most:	1.5





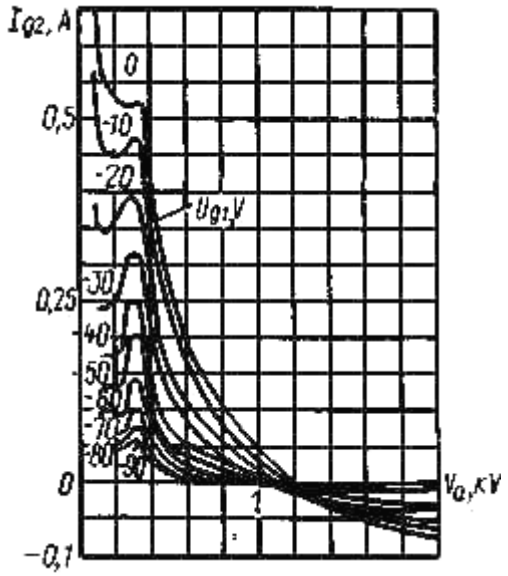




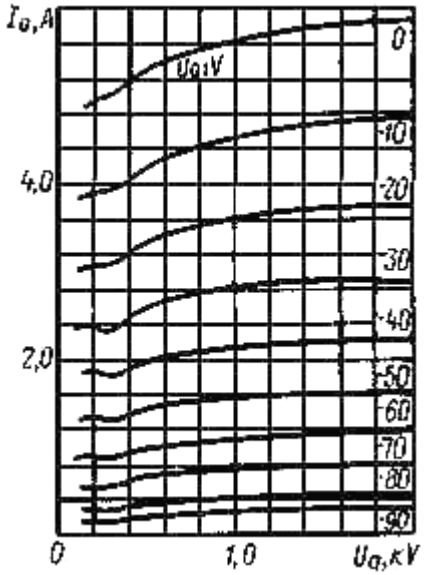
ENVIRONMENTAL OPERATING CONDITIONS	
Vibration loads:	
frequency, Hz	1-80
acceleration, m/s²	50
Multiple impacts with acceleration, m/s²	150
Ambient Conditions:	
Temperature, °C	-10 to +55
Relative humidity at up to +35 °C, %	98

NOMINAL ELECTRICAL PARAMETERS	
Heater voltage, V	27.0
Heater current, A	3.7
Mutual conductance (V_a = 750V, V_{g2} = 375V, I_a = 2A, change in V_{g1} = 1V), mA/V:	71
Negative bias (V_{g1}) with V_a = 750V, V_{g2} = 375V, I_a > 2A, V:	10-50
Negative cutoff bias (V_{g1}) with V_a = 2KV, V_{g2} = 375V, I_a = 20mA, V:	150
input capacitance, pF	102.5
output capacitance, at most, pF	20.5
transfer capacitance, pF	<0.2
Warm up time, s:	<180
AB_1 Output, V_a = 2KV, V_{g2} = 375V, I_{g1} < 0mA, I_{g2} > 80mA, frequency 0.1-1 MHz, KW:	>1.5
Designed Tube Life (hours)	>1500

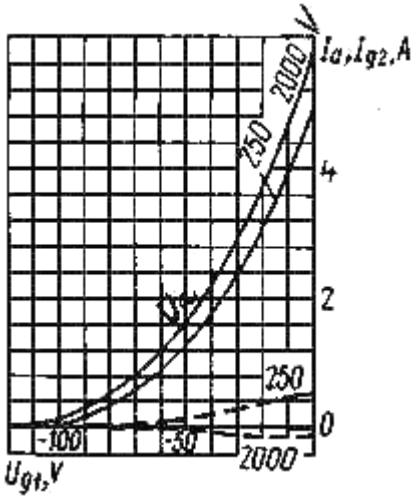
ELECTRICAL PARAMETER LIMITS	
Heater voltage, V	25.6-28.4
Heater current, A	3.4-4.0
input capacitance, pF	90-115
output capacitance, pF	18-23
Maximum CW Anode voltage (V_a), KV:	2.2
"Maximum" Control Grid voltage (V_{g1}), V	-150
Maximum Screen Grid voltage (V_{g2}), V	400
CW cathode current (I_c), A:	2
Peak cathode current (I_c), A:	6
Anode Dissipation, W:	2500
Screen Grid (G2) Dissipation, W:	30
Control Grid (G1) Dissipation, W:	1
Temperature at envelope (hottest point), °C	200
Frequency, MHz:	<250



Averaged Grid-Anode Characteristic Curves:
U_f = 27V; U_{g2} = 400V



Averaged Anode Characteristic Curves:
U_f = 27V; U_{g2} = 400V



Averaged Anode-Grid and Grid Characteristic Curves:
U_f = 27 V; U_{g2} = 400 V;
_____ I_a;
- - - I_{g2}