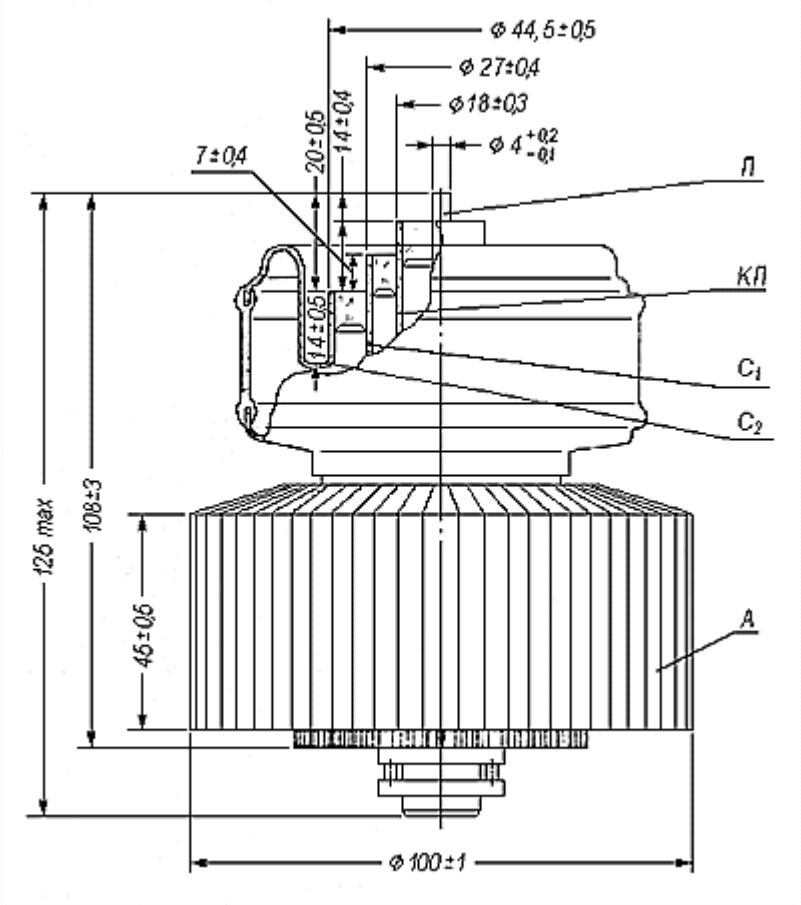
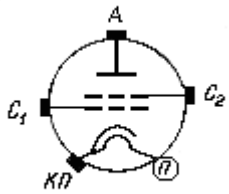
GU-43b

Tetrode

The GU-43B tetrode is used for wideband power amplification at frequencies up to 100 MHz in RF equipment. This tube is generally considered analogous to the 4CX1000.

GENERAL	
Cathode: indirectly heated, oxide-coated.	
Envelope: metal-to-glass.	
Cooling: 100 m^3/hour forced air.	
Height, mm, at most:	125
Diameter, mm, at most:	101
Mass, Kg, at most:	1.5





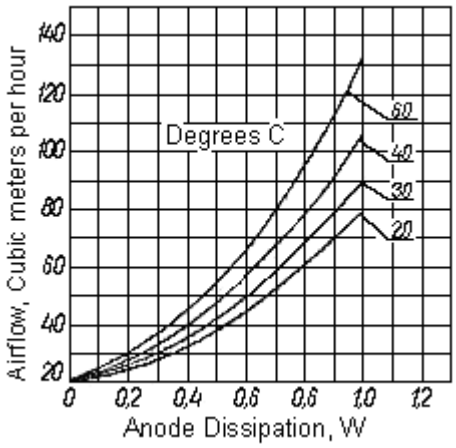
C_1 - grid 1; *KP* - cathode & heater; *P* - heater; C_2 - grid 2; *A* - anode

ENVIRONMENTAL OPERATING CONDITIONS	
Vibration loads:	
frequency, Hz	10-200
acceleration, m/s²	58
Multiple impacts with acceleration, m/s²	342
Ambient Conditions:	
Temperature, °C	-60 to +150
Relative humidity at up to +40 °C, %	98

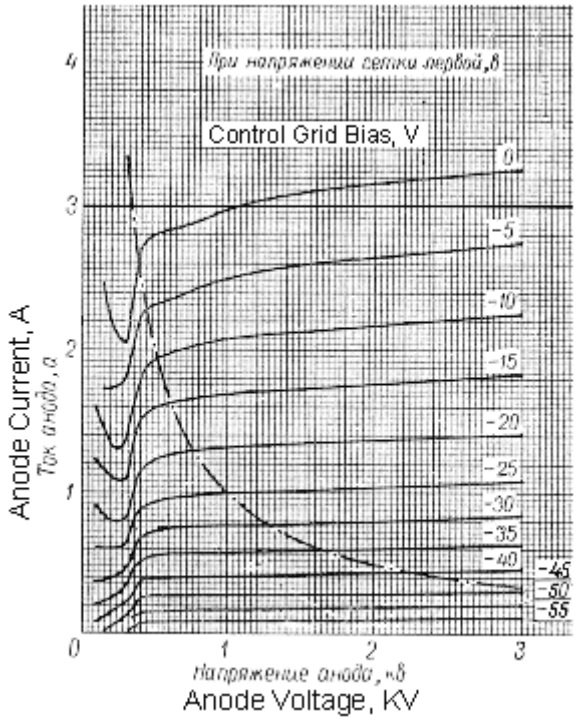
NOMINAL ELECTRICAL PARAMETERS	
Heater voltage, V	12.6
Heater current, A	6.6
Mutual conductance (V_a = 1KV, V_{g2} = 300V, I_a = 600mA, change in V_{g1} = 2.5V), mA/V:	45
Anode current (I_a) with V_a = 3KV, V_{g1} = -50V, V_{g2} = 350V, A:	~0.9
Negative bias (V_{g1}) with V_a = 1KV, V_{g2} = 350V, I_a > 800mA, V:	20-30
input capacitance, pF	90
output capacitance, at most, pF	14
transfer capacitance, pF	<0.1
Warm up time, s:	<180
AB_1 Output, V_a = 3KV, I_a ~0.9A, V_{g1} = -50V, V_{g2} = 350V, I_{g1} < 0mA, I_{g2} < 80mA, KW:	>1.6
Designed Tube Life (hours)	>1000

ELECTRICAL PARAMETER LIMITS	
Heater voltage, V	12.6 +/- ?
Heater current, A	6-7.2
input capacitance, pF	80-100
output capacitance, pF	10-18
Maximum CW Anode voltage (V_a), KV:	3.3

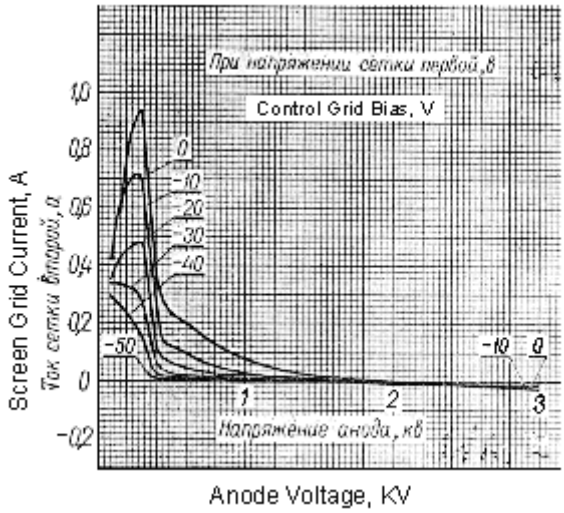
"Maximum" Control Grid voltage (V_{g1}), V	-200
Maximum Screen Grid voltage (V_{g2}), V	500
CW cathode current (I_c), A:	1
Peak cathode current (I_c), A:	3.2
Anode Dissipation, W:	1000
Screen Grid (G2) Dissipation, W:	28
Control Grid (G1) Dissipation, W:	5
Temperature at envelope (hottest point), °C	150
Frequency, MHz:	<100



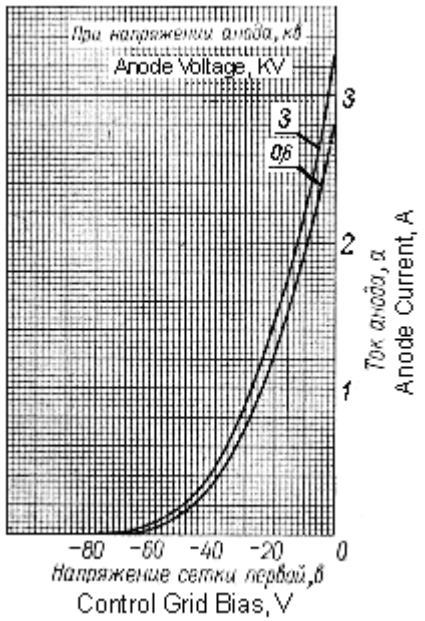
Averaged Anode Characteristic Cooling Curves:
***Anode T* °C plotted against *Airflow, m^3/sec* vs P_a**



Averaged Anode Characteristic Curves:
— . — . — P_a *Dissipation*: U_f = 12.6V; U_{g2} = 350V;



Averaged Anode Characteristic Curves:
U_f = 12.6V; U_{g2} = 350V



Averaged Anode Characteristic Curves:
U_f = 12.6V; U_{g2} = 350V