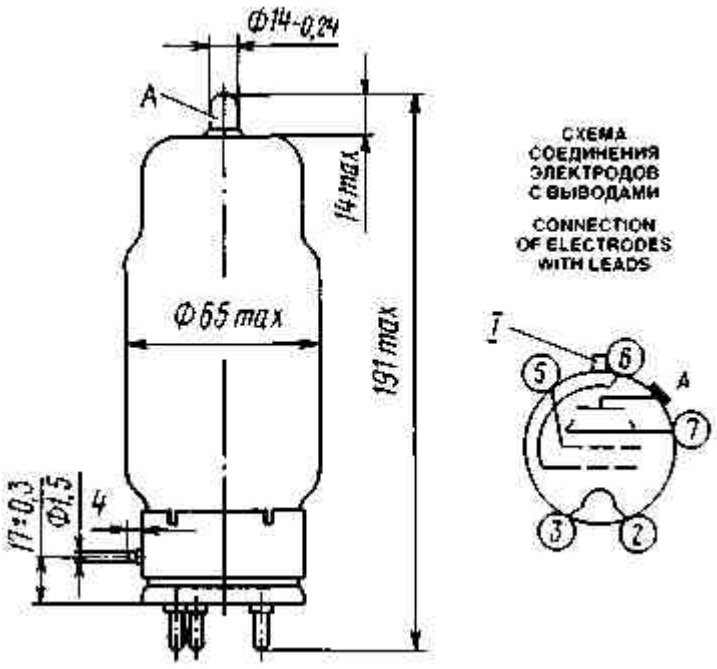
GU-13

BEAM-POWER TETRODE

The GU-13 beam-power tetrode is used for generation and power amplification in stationary RF equipment.

GENERAL
Cathode: directly heated, carbonized thorited tungsten.
Envelope; glass, with base.
Height: at most 191 mm.
Diameter: at most 65 mm.
Mass: at most 300 g.



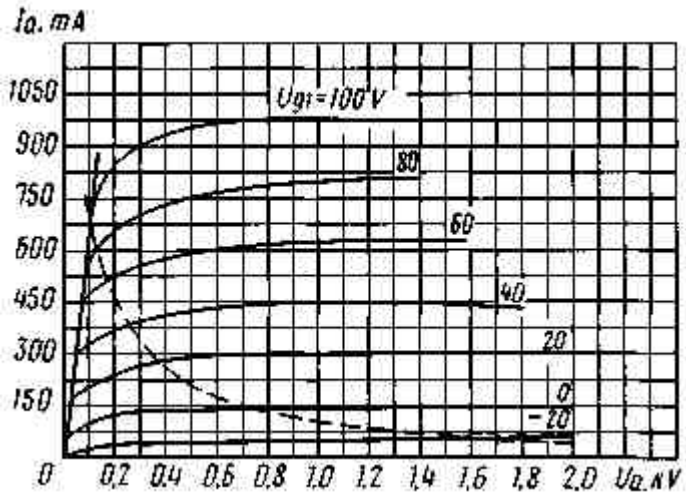
***I* - alignment pin; *2, 3* - cathode; *5* - grid 2; *6* - grid 1; *7* - beam-forming plates; *A* - anode-top cap**

OPERATING ENVIRONMENTAL CONDITIONS	
Ambient temperature, °C	-10 to +55
Relative humidity at up to +25°C, %	98

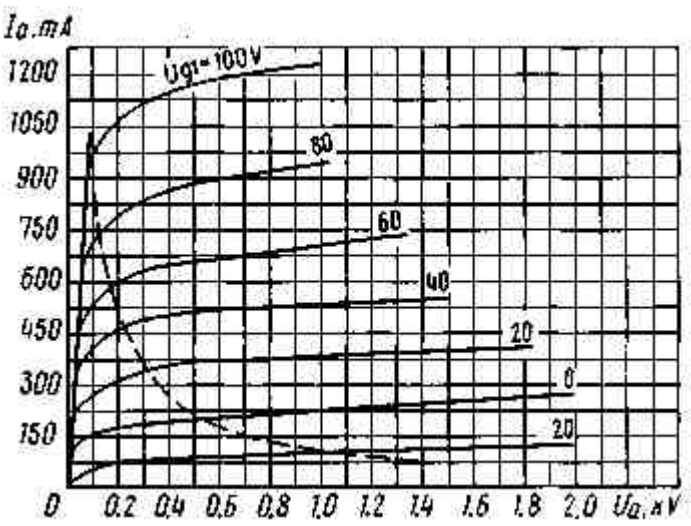
BASIC DATA Electrical Parameters	
Filament voltage, V	10
Filament current, A	4.7-5.5
Mutual conductance (at anode voltage 2 kV, grid 2 voltage 400 V, anode currents 60 and 80 mA), mA/V	3.1-4.9
Anode current (at anode voltage 2 kV, grid 2 voltage 400 V, grid 1 voltage 35 V), mA	30-65
Interelectrode capacitance, pF:	
input	13-19
output	10.5-17.5
transfer, at most	0.25
Output power (at anode voltage 2 kV, grid 2 voltage 100 V, grid 1 AC voltage 184 V), W:	
at freguency 15 MHz, at least	220
at frequency 30 MHz, at least	180
Output power over 500 h of service (at 15 MHz), W, at least	198

Limit Operating Values	
Filament voltage, V	9.5-10.5
Anode voltage, kV	2
Grid 2 voltage, V	400
Dissipation, W:	

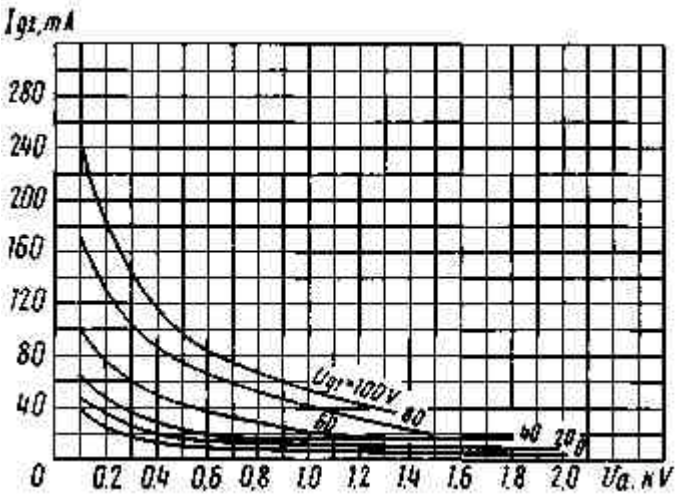
anode	100
grid 2	22
Operating frequency, MHz	30



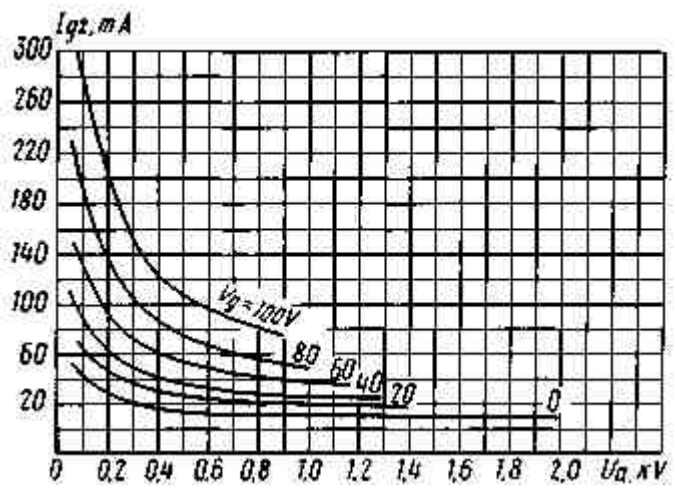
Averaged Anode Characteristic Curves:
U_f = 10V; U_{g2} = 0.3kV;
beam-forming plates voltage $U_{лп}$ is 0



Averaged Anode Characteristic Curves:
U_f = 10V; U_{g2} = 0.4kV;
— · — $P_{a\ max}$
beam-forming plates voltage $U_{лп}$ is 0

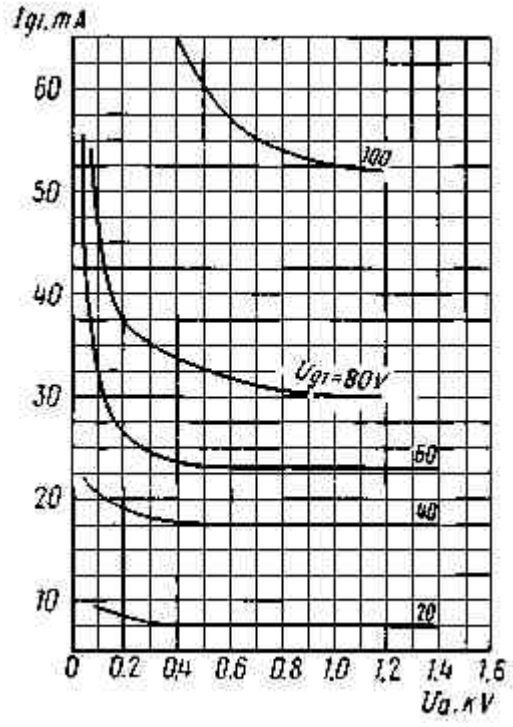


Averaged Grid 2-Anode Characteristic Curves:
U_f = 10V; U_{g2} = 0.3kV;
beam-forming plates voltage $U_{лп}$ is 0



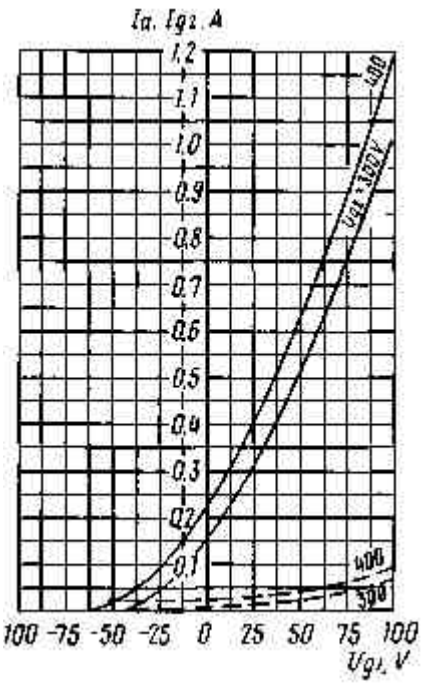
Averaged Grid 2-Anode Characteristic Curves:
U_f = 10V; U_{g2} = 0.4kV;

beam-forming plates voltage $U_{лп}$ is 0

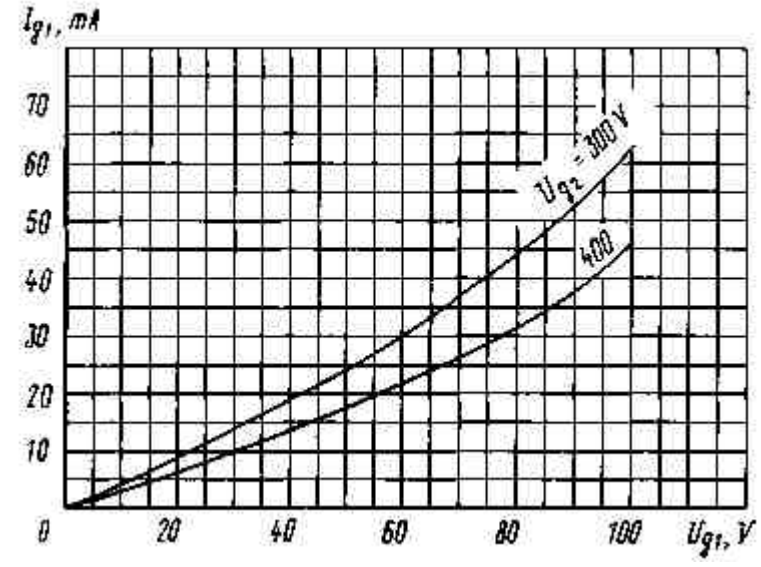


Averaged Grid-Anode Characteristic Curves:
U_f = 10V; U_{g2} = 0.4kV;

beam-forming plates voltage $U_{лп}$ is 0



Averaged Characteristic Curves:
U_f = 10V; U_{g2} = 1 kV;
_____ anode-grid;
_ _ _ grid 2;
beam-forming plates voltage $U_{лп}$ is 0



Averaged Grid Characteristic Curves:
U_f = 10V; U_a = 1 kV;
beam-forming plates voltage $U_{лп}$ is 0