

TETRODE

GU-43B

The GU-43B tetrode is used for continuous operation at frequencies up to 100 MHz in separately- or self-excited oscillator circuits and as linear power amplifiers in RF equipment.

GENERAL

Cathode: indirectly heated, oxide-coated.
Envelope: glass-to-metal.
Cooling: forced air.
Height: at most 125 mm.
Diameter: at most 100 mm.
Mass: at most 1.5 kg.

OPERATING ENVIRONMENTAL CONDITIONS

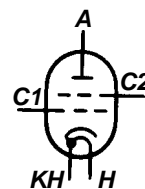
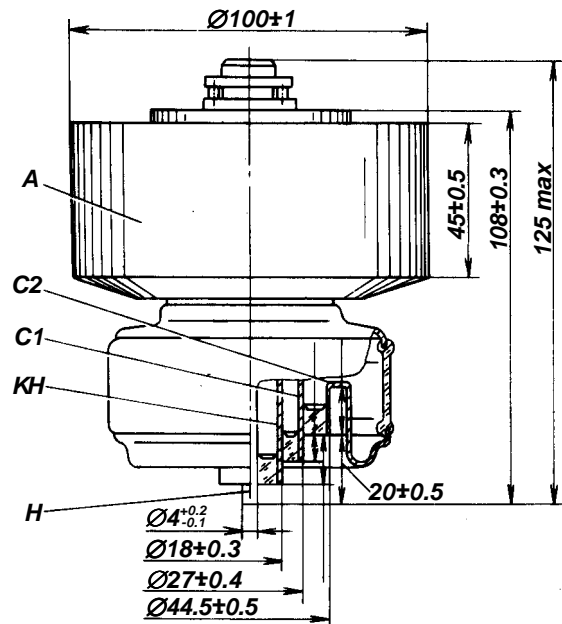
Vibration loads:	
frequencies, Hz	10-200
acceleration, m/s ²	59
frequencies, Hz	200-600
acceleration, m/s ²	20
Multiple impacts with acceleration, m/s ²	343
Linear leads with acceleration, m/s ²	147
Relative humidity at up to +40 °C, %	98

BASIC DATA Electrical Parameters

Heater voltage, V	12.6
Heater current, A	6-7.2
Mutual conductance (at anode voltage 1 kV, grid 2 voltage 350 V, anode current 1 A, grid 1 voltage change ± 2.5 V), mA/V	40-50
Negative bias voltage (at anode voltage 1 kV, grid 2 voltage 350 V, anode current 1 A), V	20-30
Interelectrode capacitance, pF:	
input	80-100
output	10-18
transfer, at most	0.1
Cathode heating time, s, at most	180
Output power (at anode voltage 3 kV, grid 2 voltage 350 V, anode current 0.9 A), kW, at least	1.6
Output power over 1000 h of service, kW, at least	1.3

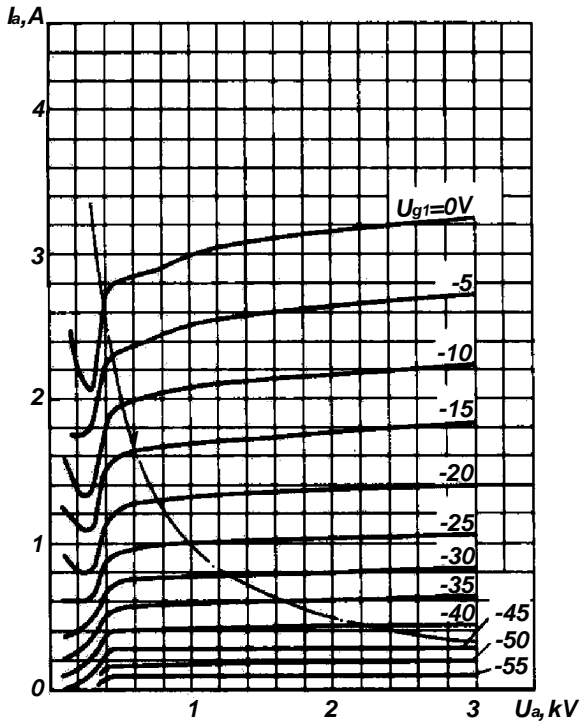
Limit Operating Values

Heater voltage, V	11.3-13.9
Anode voltage, kV	3.3
Grid 2 voltage, V	500
Negative grid 1 voltage, V	200
Cathode current, A:	
DC component	1
peak value	3.2
Dissipation, W:	
anode	1000
grid 2	28
grid 1	5
Temperature at seals, °C	150

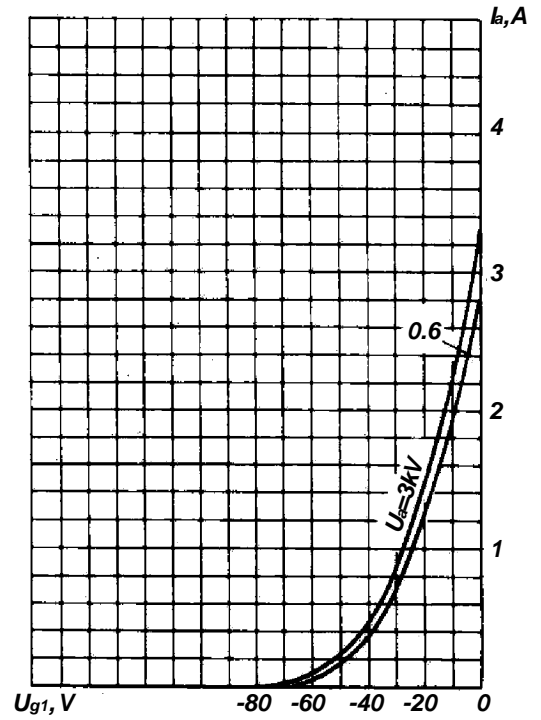


CONNECTION OF ELECTRODES WITH LEADS

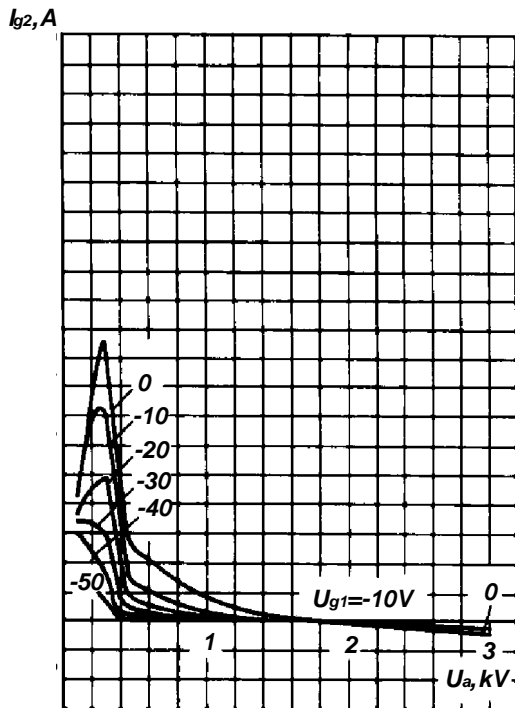
KH - cathode and heater;
H - heater; *C2* - grid 2;
C1 - grid 1; *A* - anode



Averaged Anode Characteristic Curves:
 $U_1 = 12.6V$; $U_{g2} = 350V$;
 - - - - - $P_{a max}$



Averaged Anode-Grid Characteristic Curves:
 $U_1 = 12.6V$; $U_{g2} = 350V$



Averaged Grid 2-Anode Characteristic Curves:
 $U_1 = 12.6V$; $U_{g2} = 350V$