

# 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

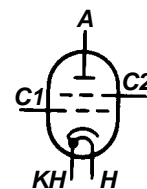
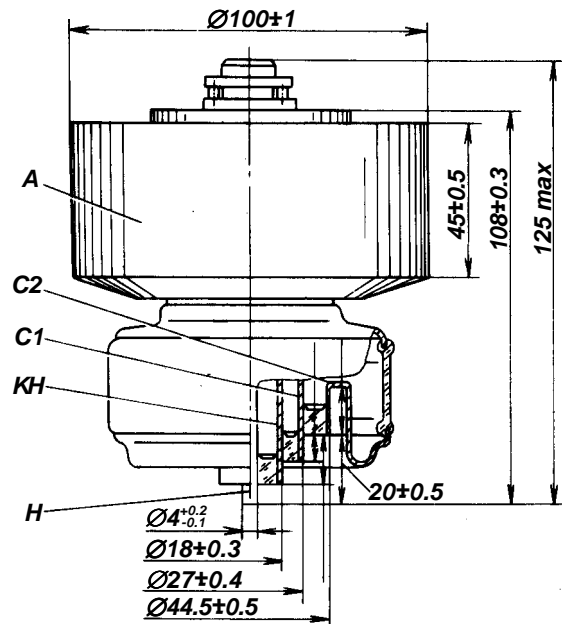
Vibration loads:	
frequencies, Hz	10-200
acceleration, m/s <sup>2</sup>	59
frequencies, Hz	200-600
acceleration, m/s <sup>2</sup>	20
Multiple impacts with acceleration, m/s <sup>2</sup>	343
Linear leads with acceleration, m/s <sup>2</sup>	147
Relative humidity at up to +40 °C, %	98

## 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 $\pm 2.5$ 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

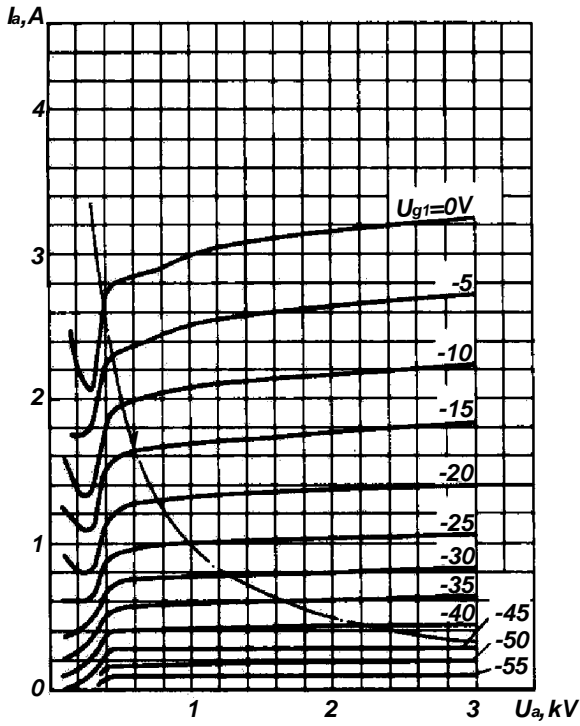
## Limit Operating Values

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

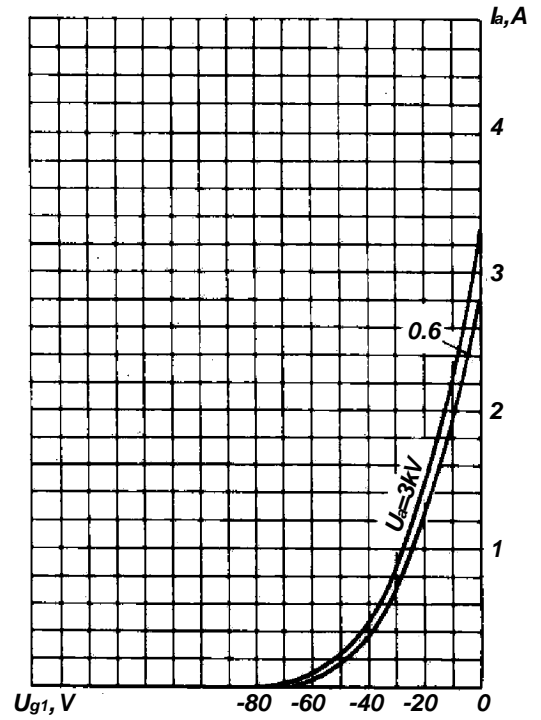


CONNECTION OF ELECTRODES WITH LEADS

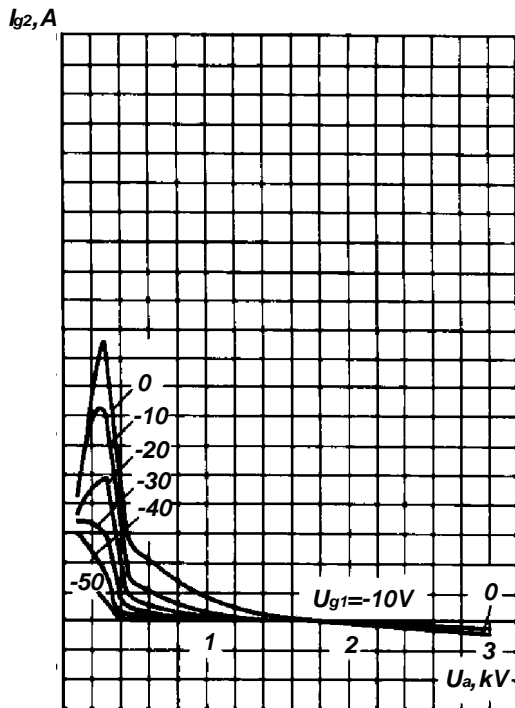
*KH* - cathode and heater;  
*H* - heater; *C2* - grid 2;  
*C1* - grid 1; *A* - anode



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:  
 $U_1 = 12.6V$ ;  $U_{g2} = 350V$