

GU-81M

PENTODE

The GU-81M pentode is used in self-excited oscillation and power amplification circuits of RF equipment.

GENERAL

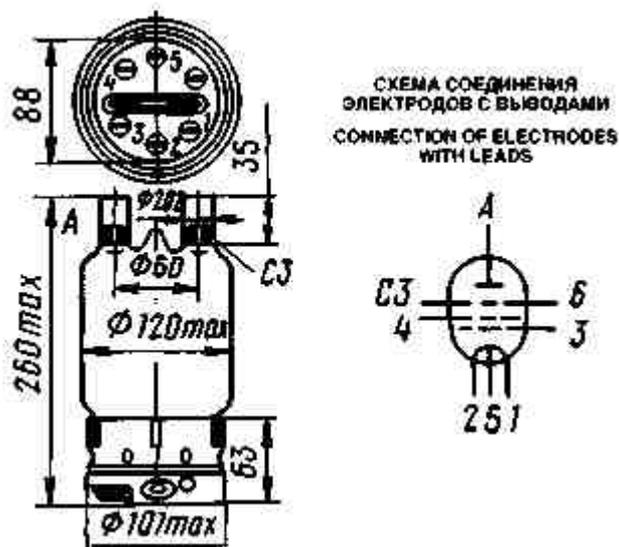
Cathode: directly heated, carbonized thoriated tungsten.

Envelope: glass, with base.

Height: at most 260 mm.

Diameter: at most 202 mm.

Mass: at most 1 kg.

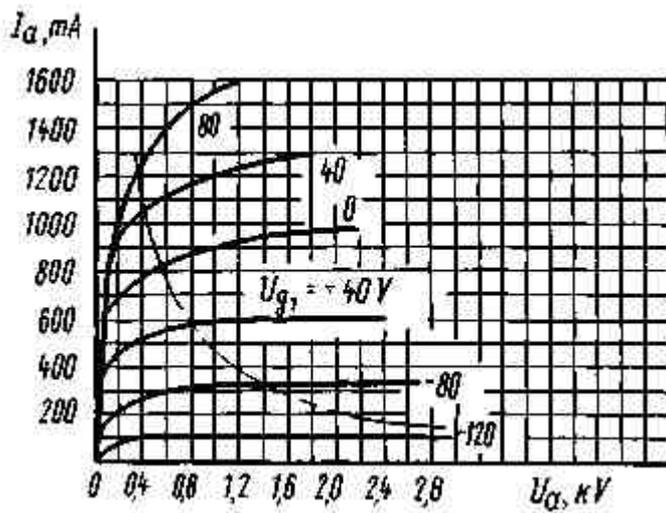


1, 2 - cathode; 3 - grid 1; 4 - grid 2; 5 - cathode centre tap; 6, C3 - grid 3; A - anode

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

BASIC DATA	
Electrical Parameters	
Filament voltage V	12.6
Filament current, A, at most	11
Mutual conductance (at anode voltage 2 kV, grid 2 voltage 600 V, anode current 200 mA), mA/V	4.5-6.5
Gain coefficient (grid 1 -grid 2) (at anode voltage 2 kV, grid 2 voltages 600 and 500 V, anode current 200 mA)	2.5-4
Bias voltage (at anode voltage 2 kV, grid 2 voltage 600 V), V	116-160
Interelectrode capacitance, pF:	
input	25-32
output	21-26
grid 1-anode, at most	0.1
grid 1-grid 3	1-4
Output power (at anode voltage 2 kV, grid 2 voltage 600 V, bias voltage -200 V, grid 1 drive voltage amplitude 300 V, anode current, at least 450 mA, grid 1 current at most 20 mA, grid 2 current, at most 220 mA), W, at least	700

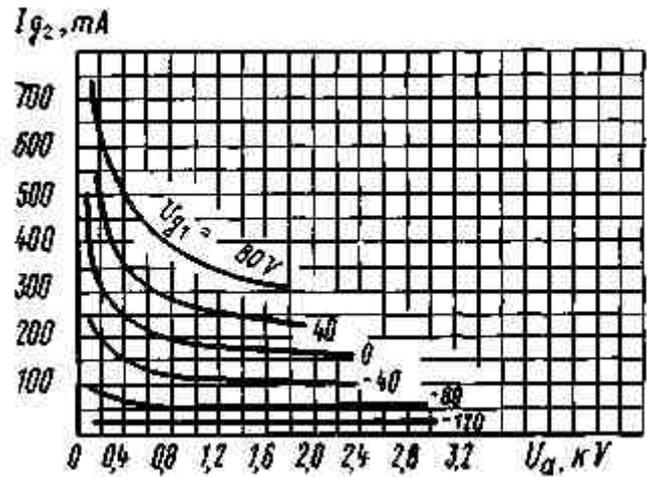
Limit Operating Values	
Filament voltage, V	11.6-13.4
Anode voltage, V:	
at frequencies not above 6 MHz	3
at frequencies not above 24 MHz	2.5
at frequencies not above 50 MHz	1.5
Grid 2 voltage, V	600
Anode current (average value), A	0.6
Grid 1 current (average value), A	0.02
Grid 2 current (average value), A	0.2
Dissipation, W:	
anode	450
anode (momentary dissipation)	600
grid 2	120
grid 1	10
Envelope temperature, °C	350



Averaged Anode Characteristic Curves:

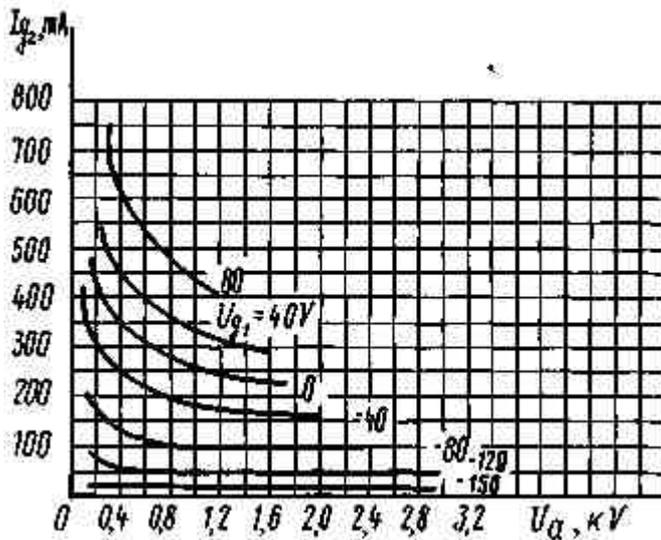
$U_f = 12.6V$; $U_{g2} = 0.5kV$;

— • — ($P_{a\ max}$)



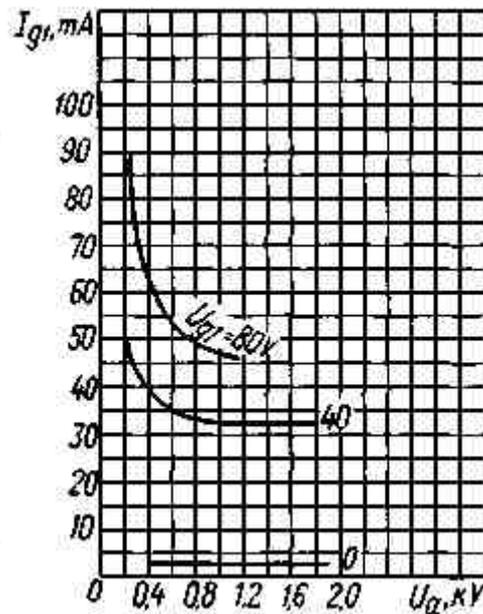
Averaged Grid 2-Anode Characteristic Curves:

$U_f = 12.6V$; $U_{g2} = 0.5kV$



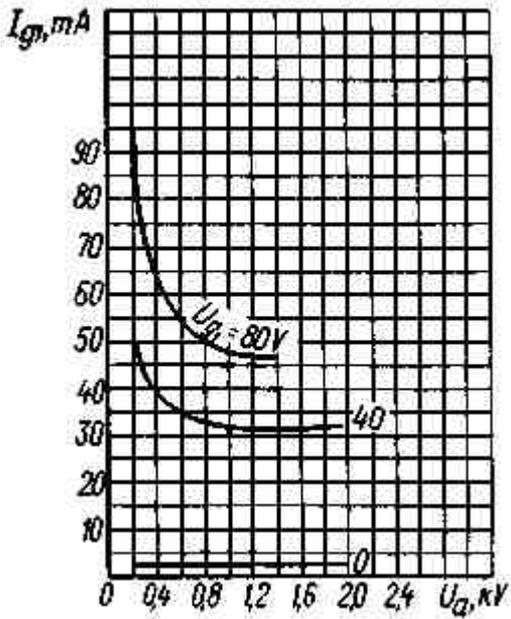
Averaged Characteristic Curves:

$U_f = 12.6V$; $U_{g2} = 0.6kV$

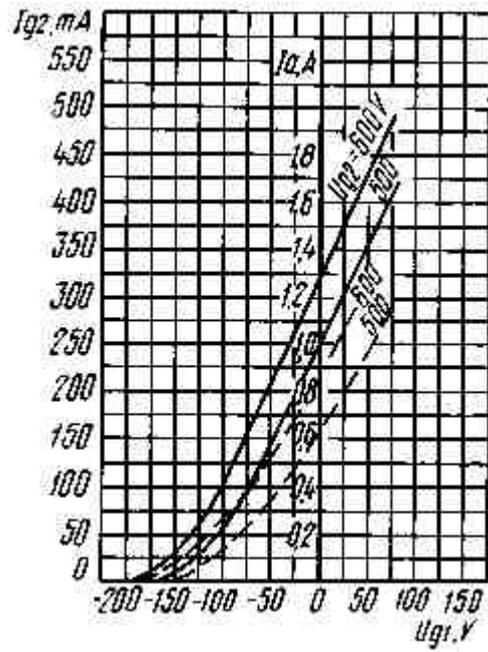


Averaged Grid-Anode Characteristic Curves:

$U_f = 12.6V$; $U_{g2} = 0.5kV$



Averaged Grid-Anode Characteristic Curves:
 $U_f = 12.6V$; $U_{g2} = 0.6kV$



Averaged Characteristic Curves:
 $U_f = 12.6V$; $U_a = 2.5kV$;
 _____ anode-grid;
 - - - - - grid 2