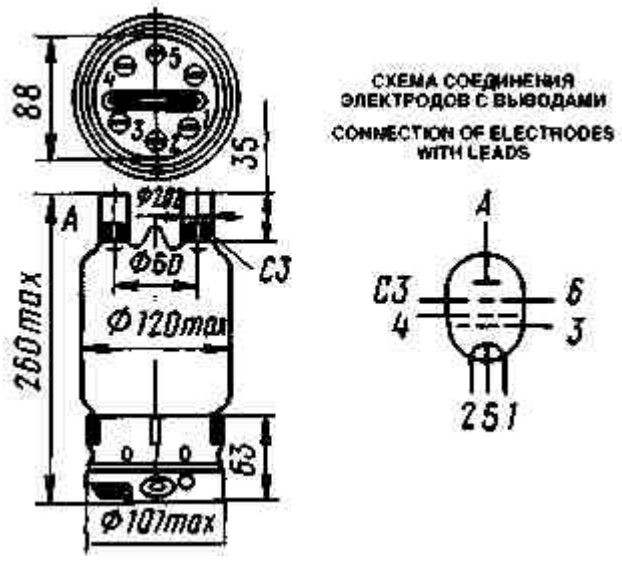
GU-81M

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.



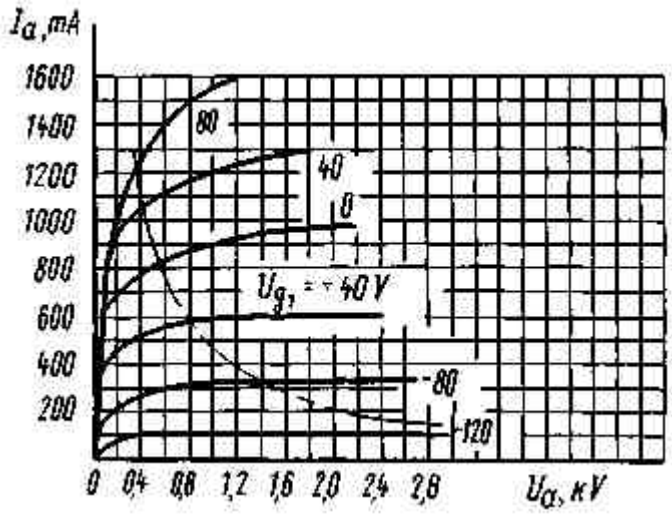
1, 2 **- cathode;** ***3*** **- grid 1;** ***4*** **- grid 2;** ***5*** **- cathode centre tap;** ***6, C3*** **- grid 3;** ***A*** **- anode**

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

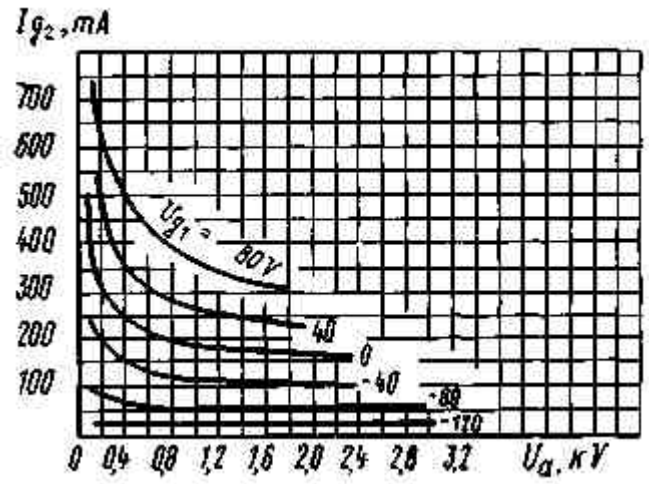
BASIC DATA Electrical Parameters	
Filament voltage V	12.6
Filament current, A, at most	11
Mutual conductance (at anode voltage 2 kV, grid 2 voltage 600 V, anode current 200 mA), mA/V	4.5-6.5
Gain coefficient (grid 1 -grid 2) (at anode voltage 2 kV, grid 2 voltages 600 and 500 V, anode current 200 mA)	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

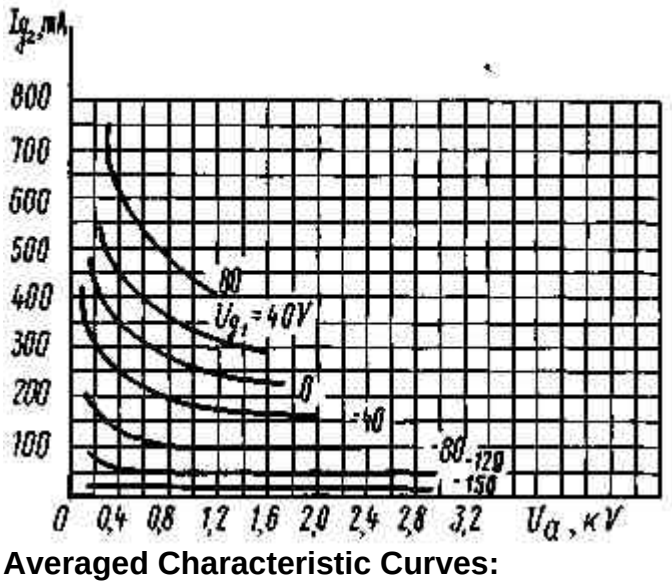
Grid 2 voltage, V	600
Anode current (average value), A	0.6
Grid 1 current (average value), A	0.02
Grid 2 current (average value), A	0.2
Dissipation, W:	
anode	450
anode (momentary dissipation)	600
grid 2	120
grid 1	10
Envelope temperature, °C	350



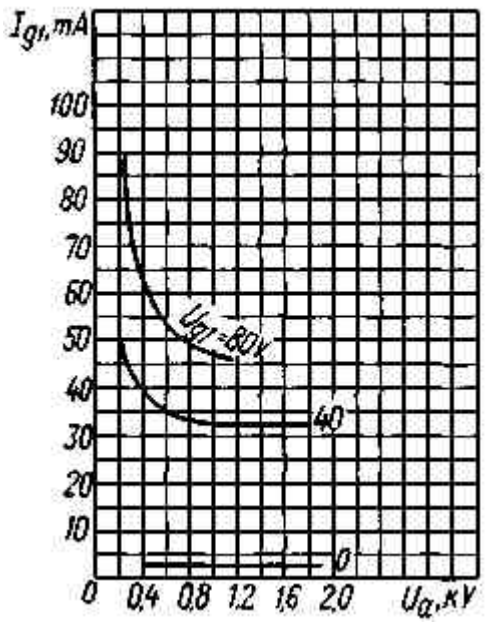
Averaged Anode Characteristic Curves:
U_f = 12.6V; U_{g2} = 0.5kV;
— • — ($P_{a\ max}$)



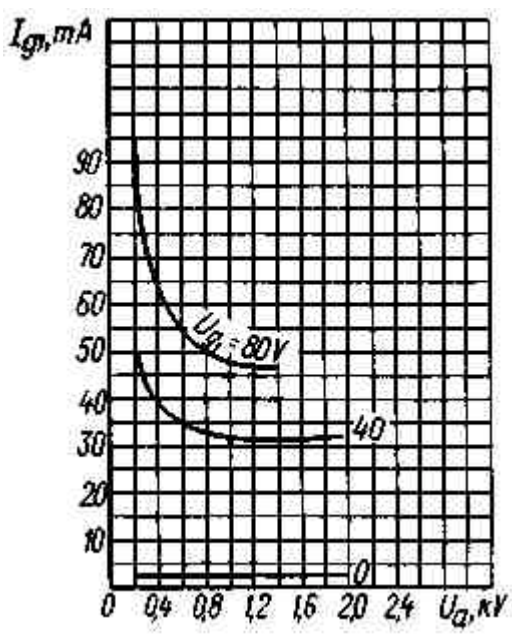
Averaged Grid 2-Anode Characteristic Curves:
U_f = 12.6V; U_{g2} = 0.6kV



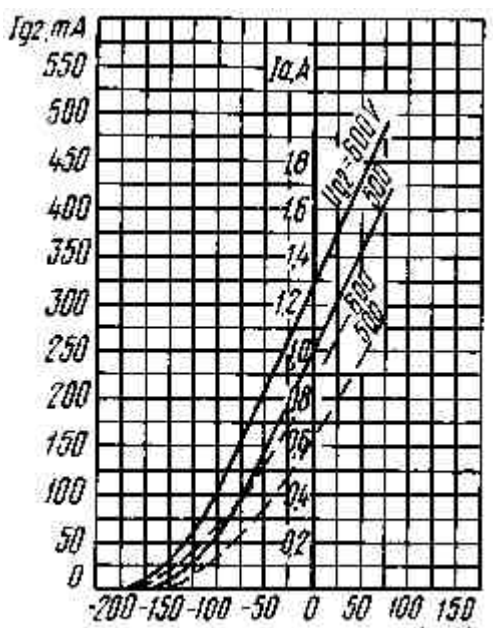
Averaged Characteristic Curves:
U_f = 12.6V; U_{g2} = 0.6kV



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