

GMI-83V

TETRODE

The GMI-83V tetrode is used as a power amplifier in pulse modulator circuits

GENERAL

Cathode: indirectly heated, oxide-coated.

Envelope: glass, with base.

Height: at most 146.5 mm.

Diameter: at most 65 mm.

Mass: at most 300 g

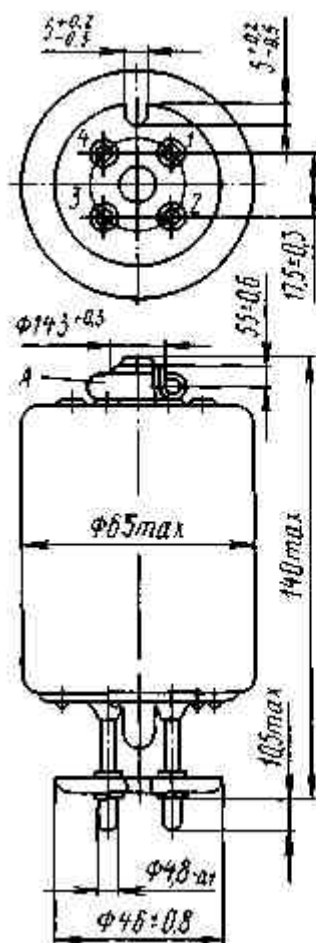


СХЕМА
СОЕДИНЕНИЯ
ЭЛЕКТРОДОВ
С ВЫВОДАМИ
CONNECTION
OF ELECTRODES
WITH LEADS

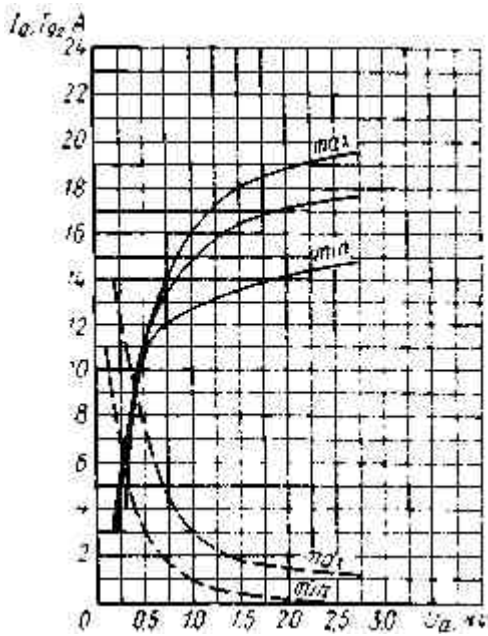


1 - grid 1; 2 - cathode and heater; 3 - heater; 4 - grid 2; A - anode-top cap

OPERATING ENVIRONMENTAL CONDITIONS	
Ambient temperature, °C	-10 to +55

BASIC DATA	
Electrical Parameters	
Heater voltage, V	25
Heater current, A	2-2.5
Peak anode current, A, at least	15
Peak grid 2 current and peak grid 1 current (at anode voltage 20 kV, grid 2 voltages 1.25 kV, grid 1 voltage -800V, peak grid 1 excess voltage 250 V), A, at least	0
Cutoff voltage, V	300-700
Interelectrode capacitance, pF:	
input	30-35
output	5-11
transfer, at most	1
Electric strength (at anode voltage 20 kV, grid 2 voltage 1.25 kV, grid 1 voltage -800 V, peak grid 1 excess voltage 250 V, pulse duration 2 μs, pulse frequency 500 pulses/s), number of sparkings, at most	25
Electrical parameters over 500 h of service:	
peak anode current, A, at least	13
electric strength, number of sparkings:	
for 80 % of tubes, at most	20
for 20 % of tubes, at most	50

Limit Operating Values	
Heater voltage, V	22.5-27.5
Anode voltage, kV	18
Grid 1 voltage, kV	-1
Grid 2 voltage, kV	1.25
Peak grid 1 excess voltage, V	250
Peak cathode current, A	25
Dissipation, W:	
anode	60
grid 2	9
grid 1	3
Pulse duration, μs	5
Warm up time, s, at least	180
Temperature at envelope and seals, °C	200

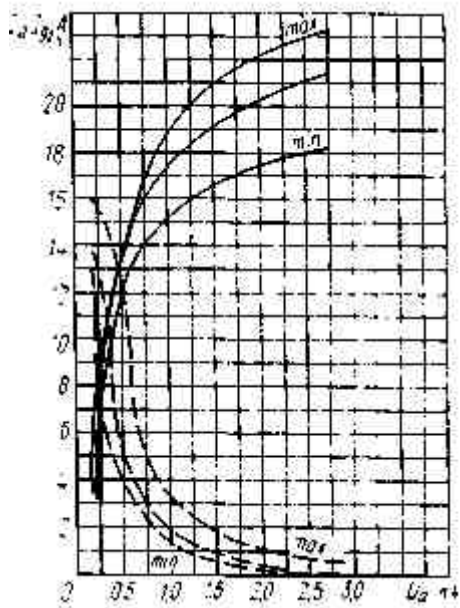


Averaged Peak Anode-Grid Characteristic Curves:

$U_f = 25V; U_{g2} = 1kV; U_{g1} = -800V; U_{g1 imp} = 250V;$

_____ anode;

---- grid-anode

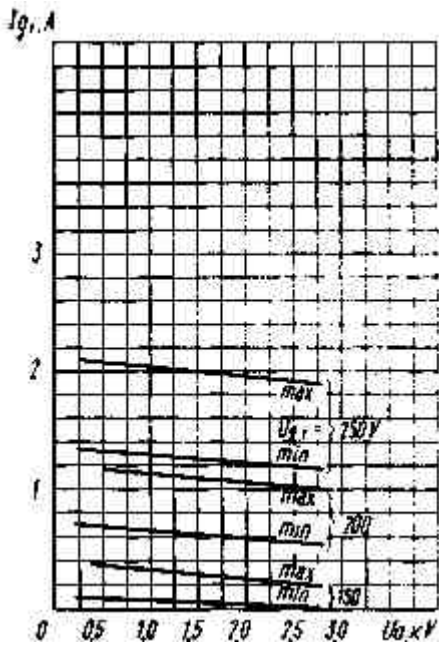


Averaged Peak Anode-Grid Characteristic Curves:

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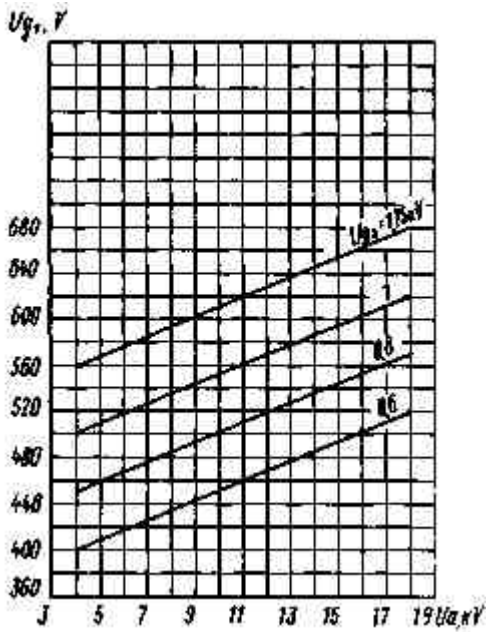
_____ anode;

---- grid-anode



Averaged Peak Anode-Grid Characteristic Curves:

$U_f = 25$ V; $U_{g2} = 1.25$ kV; $U_{g1} = -800$ V



Characteristic Curves of Grid 1 Cutoff Voltage versus Anode Voltage