

# PENTODE

# GU-81M

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.

### 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-grid3 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

