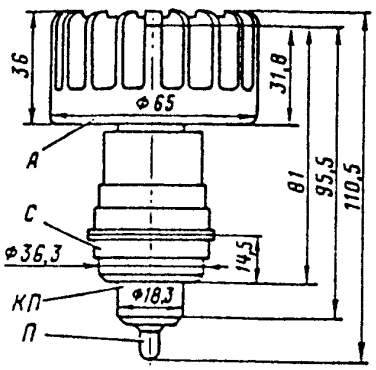

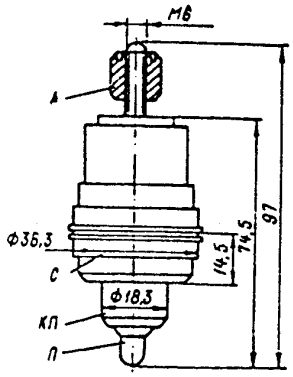

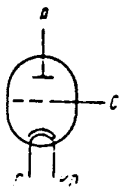

Схема соединения электродов с выводами:
А — анод; *П* — подогреватель;
С — сетка; *КП* — катод и подогреватель

Diagram of electrode connections:
A – anode; *П* – heater; *C* – grid;
КП – cathode and heater

GENERAL

The microwave transmitting pulse triode, type ГИ-7Б (ГИ-70Б) is designed for use as a C.W. and anode-pulsed oscillator and amplifier in the centimetric and decimetric wavebands.

Depending on the cooling provisions the triode is available in two versions: with a radiator for forced-air cooling (type ГИ-7Б) and without a radiator, for other cooling systems. In the latter case the type designation of the triode is ГИ-70Б.

Type of cathode: oxide, indirectly heated
Construction: metal-ceramic
Cooling: forced-air; airflow 24 m³/h (min)

Maximum mass:
with radiator 330 g
without radiator 170 g.

SERVICE CONDITIONS

Vibration: 5 to 600 Hz, up to 6 g
Multiple impacts: up to 35 g
Single impacts: up to 150 g
Linear loads: up to 50 g
Ambient temperature: −60 to +100 °C
Relative air humidity: up to 98% at 40 °C (max)
Ambient pressure: up to 0.3 MPa

Temperature, °C:	
anode core	200
anode radiator	160
cathode terminal	100
grid terminal	200
external ceramic parts	250
Resistance in grid circuit, kOhms	10

ГИ-7Б, ГИ-70Б

TRANSMITTING PULSE TRIODE

SPECIFICATION

Electrical Parameters

Heater voltage, V	12.6
Heater current, A	1.8 to 2.05
Transconductance (anode voltage 1.3 kV, grid voltage change 1 V, anode current 150 mA), mA/V	20 to 26
Penetration factor (anode voltage 1.3 kV, anode voltage change 200 V, anode current 150 mA), %	1.2 to 1.8
Operating point (negative grid voltage, anode voltage 1.3 kV, anode current 150 mA), V	12.5 to 7.5
Input capacitance, pF	10 to 12.2
Output capacitance, pF	0.055 to 0.095
Feed-through capacitance, pF	4 to 5.2
Readiness time (anode voltage 400 V), s	≤90
Output power:	
C.W. operation (anode voltage 1.05 kV, anode current 300 mA, wavelength 18.5 cm), W	≥30
pulse operation (peak anode voltage 9 kV, anode current 7.5 A, wavelength 10 cm, T/τ ratio 1400 to 150, pulse duration 3 to 10 μs), kW	≥11
Output power over 650 operating hours, W	≥24

Limiting Values of Operating Conditions

	Maximum	Minimum
Heater voltage, V	13.2	12
Anode voltage, kV:		
pulse operation	9	
instantaneous value in C.W. operation	5	
direct in C.W. operation	2.5	
direct with cold cathode	3	
Grid voltage, V:		
instantaneous value in C.W. operation	80	—400
pulse operation	600	—900
Cathode current, A:		
effective value	0.6	
D.C. component in class B operation without pulsing	0.4	
instantaneous value in class B operation without pulsing	1.2	
D.C. component of anode current in pulse operation, A	7.5	
Anode dissipation, W	35	
Grid dissipation, W	7	
Wavelength, cm		
Cathode heating time, min		
Pulse duration, μs	10	