



ELECTRONIC TUBE REFERENCE

GM70

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Classic Soviet directly heated low-mu audio power triode. Approximately 125 W plate dissipation, low amplification factor, and 1.5 kV capability provide substantial low-frequency output from a carbonized-tungsten filament.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	0
NOMINAL HEATER	20 V / 3 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	6.7
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM PLATE DISSIPATION	125 W
Promoted-field audit performed from English ratings/characteristics; detailed electrical values retained in parameter table.	

The GM70 is a high-power directly heated low-frequency triode.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Russian

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X RUSSIAN

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	19–20 V	AC or DC
Plate voltage	1500 V	DC
Plate dissipation	125 W	Continuous
Plate dissipation, 1 minute	150 W	Short duration

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	3 A	Nominal
Cathode current	800 mA	Minimum; $U_a=180V$, $V_g=180V$
Transconductance	6 mA/V	Published condition
Amplification factor	6.7	Published condition
Insulation resistance	20 MOhm	Minimum
Inverse grid current	4 uA	Maximum
Grid-plate capacitance	12 pF	Approximate
Grid-cathode capacitance	8 pF	Approximate
Plate-cathode capacitance	4 pF	Approximate
Lifetime	1000 h	Published value

1968 Electronintorg

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 ELECTRONINTORG

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
power	70 Hz	The M-70 triode is used as a low-frequency power
Cathode: directly heated, carbonized tungsten. oS TM [1]	3	Cathode: directly heated, carbonized tungsten. oS TM 3, 2—«kavop; 5 — aHog;
Cathode: directly heated, carbonized tungsten. oS TM [2]	2	Cathode: directly heated, carbonized tungsten. oS TM 3, 2—«kavop; 5 — aHog;
Cathode: directly heated, carbonized tungsten. oS TM [3]	5	Cathode: directly heated, carbonized tungsten. oS TM 3, 2—«kavop; 5 — aHog;
anode [1]	32	u i 3,2~ pathode; 5 - anode;
anode [2]	5	u i 3,2~ pathode; 5 - anode;
grid [1]	185	Height: at most 185 mm. 1 wjffl,if] LEA] 7 - grid
grid [2]	1	Height: at most 185 mm. 1 wjffl,if] LEA] 7 - grid
grid [3]	7	Height: at most 185 mm. 1 wjffl,if] LEA] 7 - grid
temperature, °C [1]	-10 C	 —10—+55 Ambient temperature, °C -10 +55
temperature, °C [2]	55 C	 —10—+55 Ambient temperature, °C -10 +55
temperature, °C [3]	-10 C	 —10—+55 Ambient temperature, °C -10 +55
temperature, °C [4]	55 C	 —10—+55 Ambient temperature, °C -10 +55
voltage	600 uS	Mutual conductance (at anode voltage 600 V,
current [1]	160 mA	anode current 160-260 mA), mA/V 4.6-7.2
current [2]	-260 mA	anode current 160-260 mA), mA/V 4.6-7.2
current [3]	4.6 mA	anode current 160-260 mA), mA/V 4.6-7.2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
current [4]	-7.2 mA	anode current 160-260 mA), mA/V 4.6-7.2
voltage [1]	1.2 kV	Gain coefficient (at anode voltage 1.2—1kV,
voltage [2]	-1 kV	Gain coefficient (at anode voltage 1.2—1kV,
voltage [1]	-200 V	at grid voltage —200 V,atmost 80
voltage [2]	80 V	at grid voltage —200 V,atmost 80
input [1]	5	input 5-11
input [2]	-11	input 5-11
output [1]	3	output ... 3-6
output [2]	-6	output ... 3-6
dissipation, W [1]	125 W	PaccenBaemast MOWHOCTbL aHogom, BT 125 Anode dissipation, W 125
dissipation, W [2]	125 W	PaccenBaemast MOWHOCTbL aHogom, BT 125 Anode dissipation, W 125
grid vomage Uy [1]	500	500 yd tage Uy 1s squal 1o grid vomage Uy
grid vomage Uy [2]	1	500 yd tage Uy 1s squal 1o grid vomage Uy
grid vomage Uy [3]	1	500 yd tage Uy 1s squal 1o grid vomage Uy
Anode Characteristic Curves: U, =	20	Averaged Anode Characteristic Curves: U, =20V
grid; A ,/	5	iz an%de-grid; A ,/ 5 i

TUBE TINKER

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