

8T85RB TRIODE



The 8T85RB is a forced-air cooled, medium-mu triode suitable as an industrial radio frequency oscillator, as well as for broadcasting service. Maximum ratings apply at frequencies up to 45 MHz, with the anode capable of dissipating 10 kW during continuous commercial service. The tube has ceramic to metal construction, and the lead wires for grid and filament terminals can be easily connected by adjustable terminals.

General Characteristics

Electrical

Filament: Thoriated tungsten

Voltage	12	V
Current	40	A
Amplification factor	21	
Transconductance(Ib = 1 Adc)	11	μS
Direct interelectrode capacitances:		
Grid-Plate	16	pF
Grid-Filament	22	pF
Plate-Filament	0.9	pF
Frequency for maximum ratings	45	MHz

Overall dimensions:

Length	308	mm
Diameter	204	mm

Weight

(Revised 1/1/05)



P E N T A L A B O R A T O R I E S

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ELECTRON TUBES FOR INDUSTRY



8T85RB Triode

Mechanical

Overall dimensions:

Length	308	mm
Diameter	204	mm
Weight(Approx.)	9	kg
Operating position	Vertical, anode down	

Cooling: Forced-air(1)

Radiator

Plate Dissipation (kW)	4	6	10
Minimum air flow (m ³ /min)	8	16	22
Minimum static pressure (mm of water)	6	20	40

Maximum anode temperature	250	°C
Maximum incoming air temperature	40	°C
Maximum temperature of ceramic to metal seals (2)	250	°C
Maximum temperature on envelope	250	°C

Radio-Frequency Power Amplifier and Oscillator

Class C Telegraphy

Maximum Ratings, Absolute Values:

	Continuous Service	Intermittent Service	
DC plate voltage	12	12	kV
DC grid voltage	-2000	-2000	V
DC plate current	2.5	3	A
DC grid current	300	400	mA
Plate input	25	33	kW
Plate dissipation	10	10	kW
Grid dissipation	250	300	W

Typical Operation, Values for oscillation

	Continuous Service		Intermittent Service	
DC plate voltage	8	11	11.5	kV
Peak RF grid voltage	1300	1600	1950	V
DC plate current	2	2.3	2.8	A
DC grid current(Approx.)	220	250	270	mA
Grid resistor	4	4.5	5	kΩ
Power Output(Approx.)	12	17.5	23.5	kW



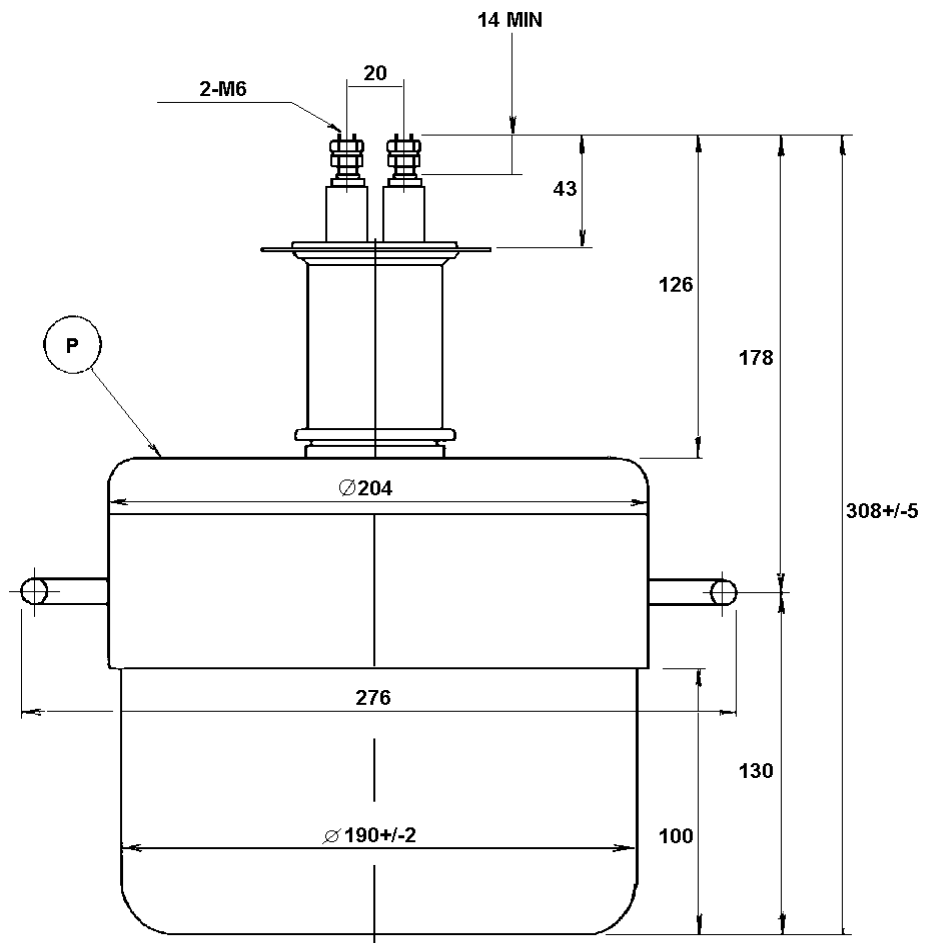
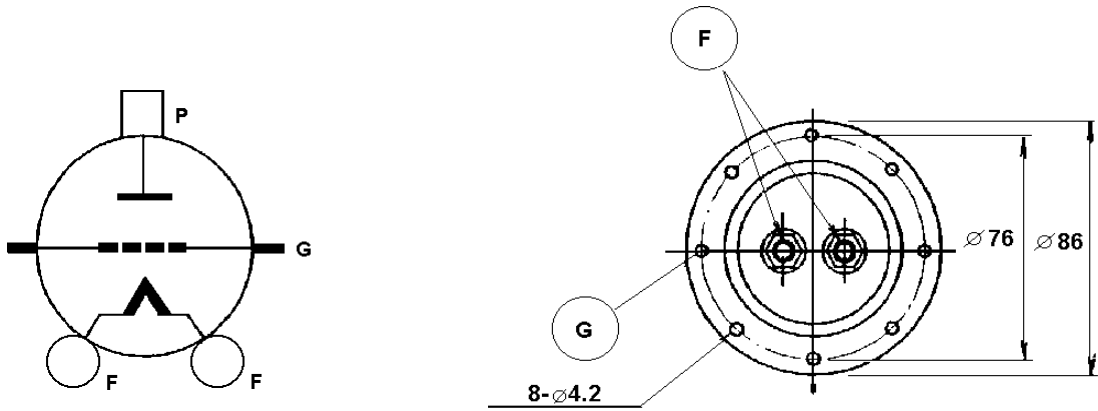
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Notes:

1. The specified air flow should be delivered through radiator onto each terminals before the application of filament voltage, and may stop simultaneously with the removal of all voltages.
2. Filament and grid terminal will be cooled by the air flow through the radiator.
3. Values for intermittent service are those for 30 seconds of operating time and 50% of duty factor.



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