Beam Power Amplifier

5B/250A

CATHODE.

Indirectly heated oxide coated.

Heater voltage	6.3	V
Nominal current	0.9	A

RATING.

Screen Grid μ	Measured at V_a 500 V	9	
Mutual conductance	V_{g2} 250 V I_a = 72 mA	6.0	mA/V

INTER-ELECTRODE CAPACITIES

Grid to anode	0.2	pF
Input capacity	11	pF
Output capacity	7	pF

DIMENSIONS.

Maximum overall length	150	mm.
Maximum diameter	53	mm.
Base—American medium 5-pin ceramic.		
Net weight	72	g.

MAXIMUM RATINGS

Maximum direct anode voltage	600	V
Maximum direct screen voltage	300	V
Maximum direct anode current	120	mA
Maximum anode dissipation	25	W
Maximum screen input	3.5	W
Maximum frequency for above ratings	60	Mc/s
Maximum anode voltage for frequency of 125 Mc/s	300	V

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TYPICAL OPERATING CONDITIONS

AUDIO FREQUENCY

Class B Power Amplifier or Modulator.
(For balanced 2-valve circuit.)

Direct anode voltage	400	600 V
Direct screen voltage	300	300 V
Grid bias	—25	—30 V
Anode current per valve—zero signal	50	30 mA
Anode current per valve—maximum signal	115	100 mA
Load resistance anode to anode	3,800	6,660 ohms
Maximum signal direct screen current	10	10 mA
Maximum signal power output	60	80 W
Peak A.F. grid-to-grid voltage	80	80 V

RADIO FREQUENCY

Class B Telephony Modulated Carrier applied to Grid. (Carrier conditions per valve for use with 100% modulation.)

Direct anode voltage	400	600 V
Direct screen voltage	250	250 V
Grid bias	—25	—25 V
Direct anode current	75	62.5 mA
Direct screen current	4	3 mA
*Direct grid current	0	0 mA
Peak R.F. grid voltage	30	20 V
Power output	9	12.5 W

Class C Power Amplifier Anode subject to modulation. (Carrier conditions per valve for use with 100% modulation.)

Direct anode voltage	325	475 V
Direct screen voltage	225	225 V
Grid bias	—45	—50 V
Peak R.F. grid voltage	70	70 V
Direct anode current	80	83 mA
Direct screen current	9	9 mA
*Direct grid current	3	2 mA
Power output	15	24 W

Class C Power Amplifier or Oscillator unmodulated.

Direct anode voltage	400	600 V
Direct screen voltage	250	250 V
Grid bias	—50	—50 V
Peak R.F. grid voltage	80	80 V
Direct anode current	95	100 mA
Direct screen current	9	9 mA
*Direct grid current	2.5	3 mA
Power output	25	37.5 W

*Subject to wide variation depending upon the impedance of the load circuit.

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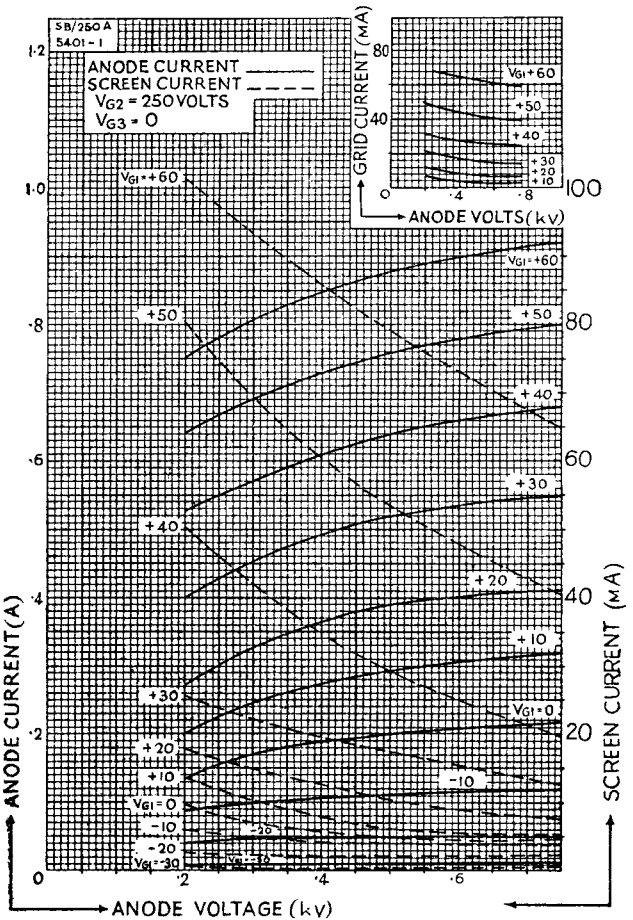

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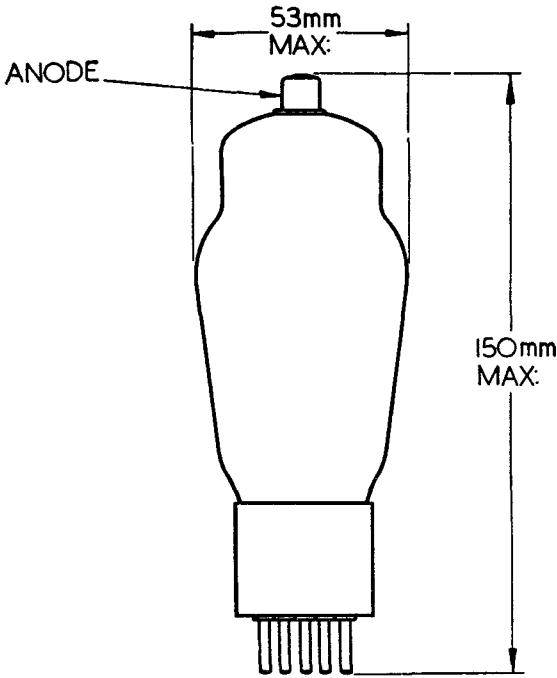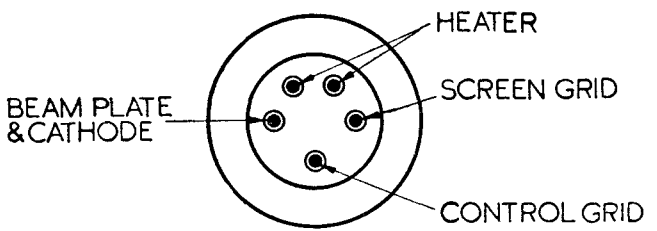
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