

RADIOTRON**6L6, 6L6-G****6L6-G**
SHEET 1**BEAM POWER AMPLIFIER**

Heater*		Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts	
Current	0.9	amp.	
Maximum Overall Length	4-5/16"	6L6	6L6-G
Maximum Seated Height	3-3/4"		
Maximum Diameter	1-5/8"		
Bulb	Metal Shell, MT-10		ST-16
Base	{ Small Metal Octal 7-Pin		Medium Shell Octal 7-Pin
Basing Designation	7AC		G-7AC
Pin 1	{ 6L6, Shell 6L6-G, No Con.		Pin 4 - Screen
Pin 2	- Heater		Pin 5 - Grid
Pin 3	- Plate		Pin 7 - Heater
Mounting Position			Pin 8 - Cathode



BOTTOM VIEW

SINGLE-VALVE AMPLIFIER - Class A₁*

Plate Voltage	360 max. volts
Screen Voltage	270 max. volts
Plate Dissipation	19 max. watts
Screen Dissipation	2.5 max. watts

Typical Operation:

	Fixed Bias		Cathode Bias		
Plate	250	350	250	300	volts
Screen	250	250	250	200	volts
Grid*	-14	-18	-	-	volts
Cathode Resistor	-	-	170	220	ohms
Peak A-F Grid Volt.	14	18	14	12.5	volts
Zero-Sig. Plate Cur.	72	54	75	51	ma.
Max.-Sig. Plate Cur.	79	66	78	54.5	ma.
Zero-Sig. Screen Cur.	5	2.5	5.4	3	ma.
Max.-Sig. Screen Cur.	7.3	7	7.2	4.6	ma.
Plate Res.	22500	33000	-	-	ohms
Transcond.	6000	5200	-	-	μmhos
Load Resistance	2500	4200	2500	4500	ohms
Total Harmonic Dist.	10	15	10	11	%
Max.-Sig. Power Output	6.5	10.8	6.5	6.5	watts

SINGLE-VALVE AMPLIFIER - Class A₁* (Triode Connection)†

Plate Voltage	250 max. volts
Plate & Screen Dissipation (Total)	10 max. watts

Typical Operation:

	Fixed Bias		Cathode Bias		
Plate	250		250		volts
Grid*	-20		-		volts
Cathode Resistor	-		490		ohms

* The heater should be operated at 6.3 volts. Under maximum dissipation conditions, the heater voltage should never fluctuate so that it exceeds 7.0 volts. The potential difference between heater and cathode should be kept as low as possible.

† Screen tied to plate.

‡, *: See next page.

← Indicates a change.

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BEAM POWER AMPLIFIER6L6
6L6-G
SHEET 2

(continued from preceding page)

	Fixed Bias		Cathode Bias	
Peak A-F Grid-to-Grid Voltage	45	45	57	volts
Zero-Sig. Plate Cur.	88	88	88	ma.
Max.-Sig. Plate Cur.	132	140	100	ma.
Zero-Sig. Screen Cur.	5	5	5	ma.
Max.-Sig. Screen Cur.	15	11	17	ma.
Effective Load Resistance (plate to plate)	6600	3800	9000	ohms
Total Harmonic Dist.	2	2	4	%
Max.-Sig. Power Output	26.5	18	24.5	watts

PUSH-PULL AMPLIFIER - Class AB₂[⊙]

Plate Voltage	360 max.	volts
Screen Voltage	270 max.	volts
Plate Dissipation	19 max.	watts
Screen Dissipation	2.5 max.	watts

Typical Operation:

Values are for 2 valves.

	Fixed Bias		
Plate	360	360	volts
Screen	225	270	volts
Grid	-18	-22.5	volts
Peak A-F Grid-to-Grid Volt.	52	72	volts
Zero-Sig. Plate Cur.	78	88	ma.
Max.-Sig. Plate Cur.	142	205	ma.
Zero-Sig. Screen Cur.	3.5	5	ma.
Max.-Sig. Screen Cur.	11	16	ma.
Effective Load Resistance (plate to plate)	6000	3800	ohms
Peak Grid-Input Power [‡]	140	270	mw.
Total Harmonic Distortion**	2	2	%
Max.-Sig. Power Output	31	47	watts

⊙ Subscript 2 indicates that grid current flows during some part of input cycles.

‡ Driver stage should be capable of supplying the grids of the class AB₂ stage with the specified peak values at low distortion. The effective resistance per grid circuit of the class AB₂ stage should be kept below 500 ohms and the effective impedance at the highest desired response frequency should not exceed 700 ohms.

* The type of input coupling used should not introduce too much resistance in the grid circuit. Transformer- or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode bias, the grid circuit may have a resistance not to exceed 0.5 megohm, provided the heater voltage is not allowed to rise more than 10% above the rated value under any condition of operation. Fixed-bias values up to 10% of each typical screen voltage can be used without increasing distortion, when the push-pull connection is used.

** With zero-impedance driver and perfect regulation, plate-circuit distortion does not exceed 2%. In practice, plate-voltage regulation, screen-voltage regulation, and grid-bias regulation should be not greater than 5%, 5%, and 3%, respectively.

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AVERAGE PLATE CHARACTERISTICS
TRIODE CONNECTION

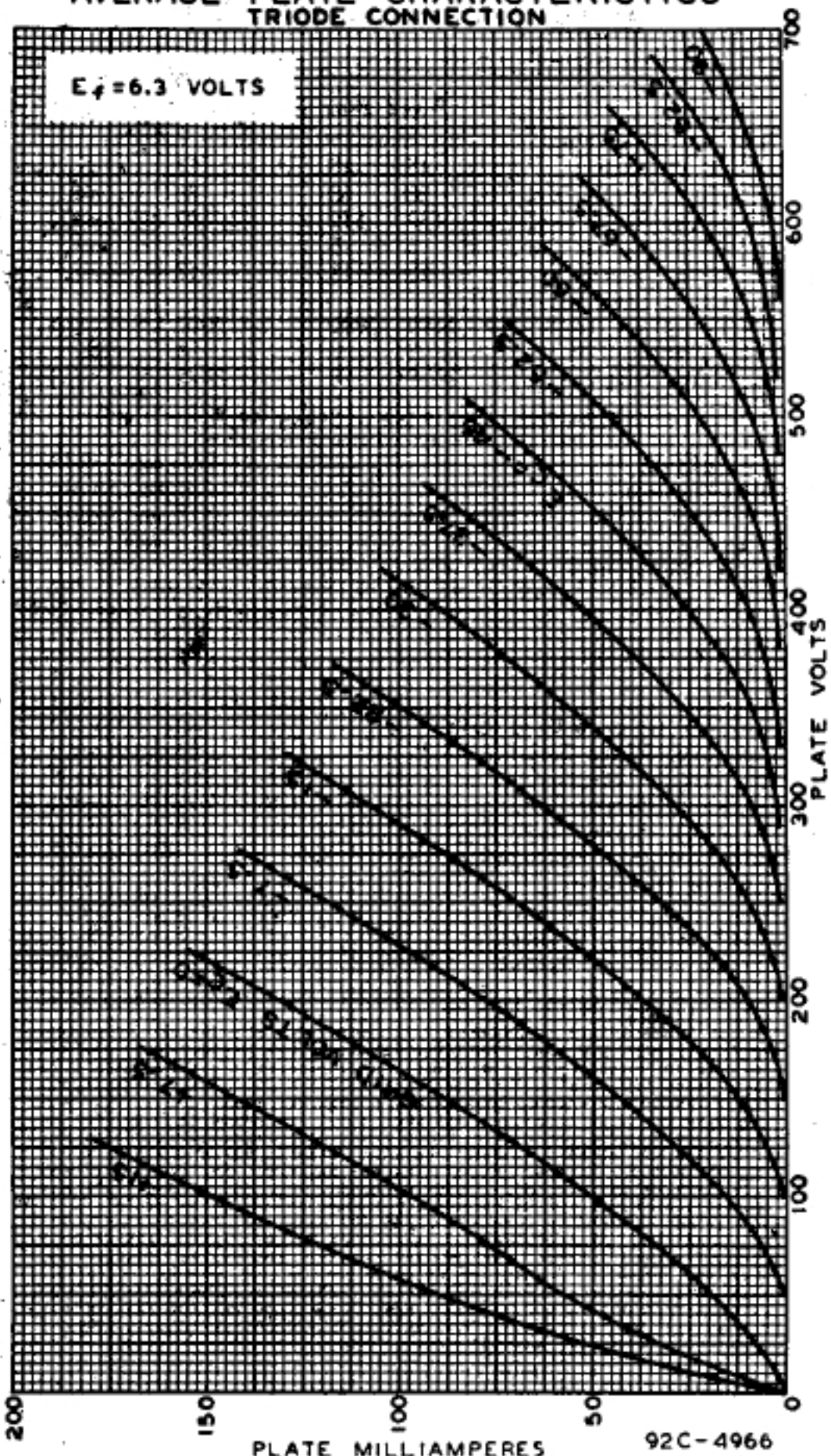


PLATE MILLIAMPERES 92C-4966
AMALGAMATED WIRELESS VALVE CO. PTY. LTD.
SEPTEMBER, 1940 SYDNEY, AUSTRALIA