

6EU7

High-Mu Twin Triode

9-PIN MINIATURE TYPE

For High-Fidelity Audio-Amplifier Applications Critical as to Noise and Hum

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3 ± 10%	volts
Current at 6.3 volts	0.3	amp

Direct Interelectrode Capacitances
(Each Unit, Approx.):[▲]

Grid to plate	1.5	μμf
Grid to cathode and heater	1.6	μμf
Plate to cathode and heater	0.2	μμf

Equivalent Noise and Hum Voltage
(Referenced to Grid, Each Unit):

Average Value (RMS)	1.8	μvolts
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Measured in "true rms" units under the following conditions: Heater volts (AC)= 6.3; center-tap of heater transformer connected to ground; plate supply volts (DC)- 250; plate load resistor (megohms)= 0.1; cathode resistor (ohms)= 2700; cathode bypass capacitor (μf)= 100; grid resistor (ohms)= 0; amplifier frequency range 25 to 10000 cps.

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	100	250	volts
Grid Voltage	-1	-2	volts
Amplification Factor	100	100	
Plate Resistance (Approx.)	80000	62500	ohms
Transconductance	1250	1600	μmhos
Plate Current	0.5	1.2	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" ± 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb	T6 1/2
Base	Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW	9LS

Pin 1 - Heater	Pin 6 - Plate of Unit No. 2
Pin 2 - Heater	Pin 7 - Plate of Unit No. 1
Pin 3 - No Connection	Pin 8 - Grid of Unit No. 1
Pin 4 - Cathode of Unit No. 2	Pin 9 - Cathode of Unit No. 1
Pin 5 - Grid of Unit No. 2	



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AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE.	330	max.	volts
GRID VOLTAGE:			
Negative-bias value.	55	max.	volts
Positive-bias value.	0	max.	volts
PLATE DISSIPATION.	1.2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts

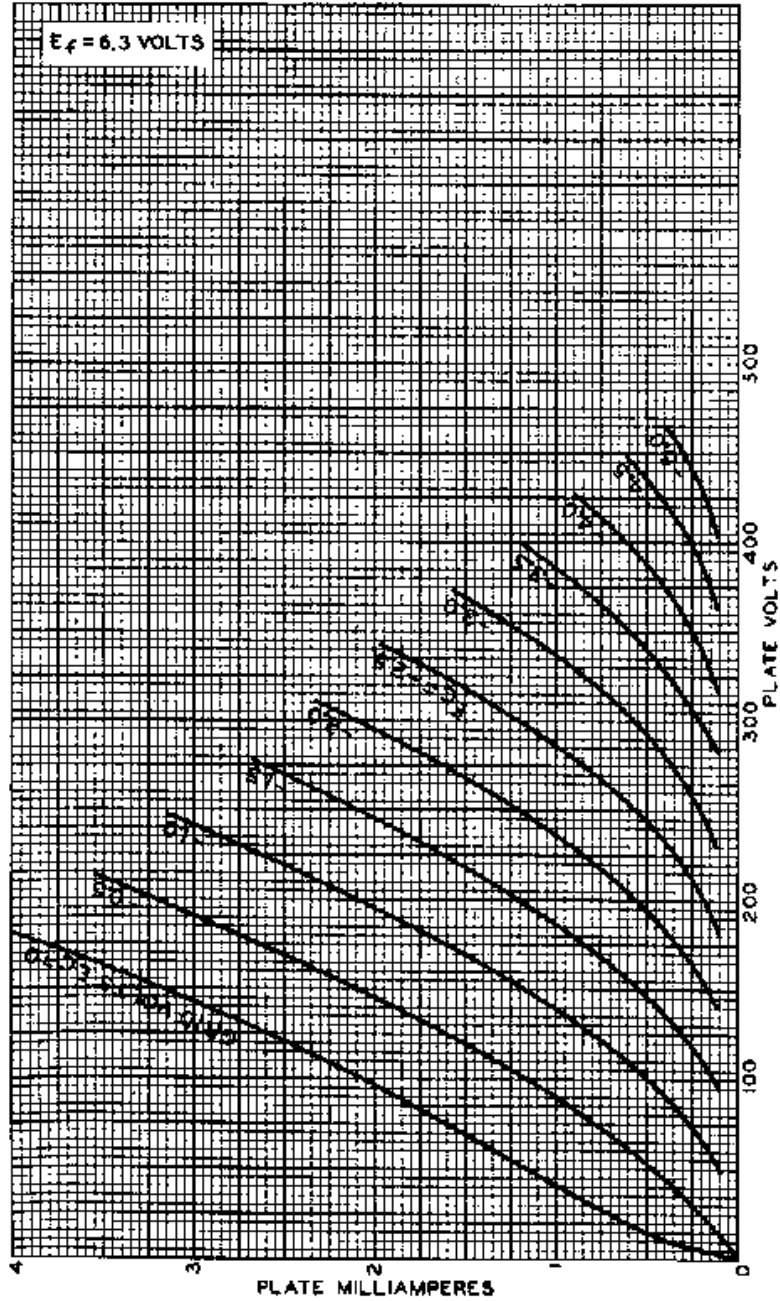
Typical Operation as Resistance-Coupled Amplifier:

*See RESISTANCE-COUPLED-AMPLIFIER CHART No. 25
at front of this Section*

[▲] The dc component must not exceed 100 volts.

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AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-10470

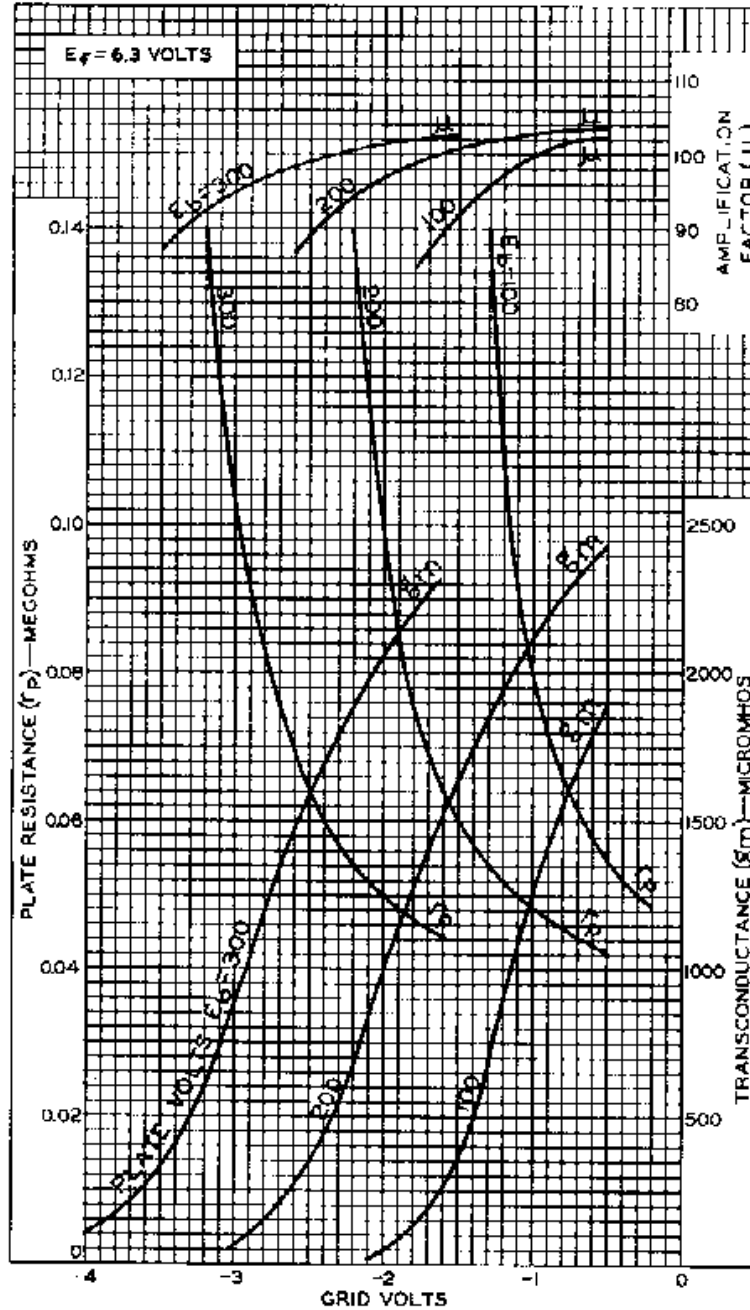


RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 2
8-60

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AVERAGE CHARACTERISTICS Each Unit



92CM-10471

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RESISTANCE-COUPLED AMPLIFIER CHARTS (Continued)

See Circuit Diagram 1		25							
E _{bb}	R _p	R _g	R _{g2}	R _k	C _{g2}	C _k	C	E _o	V.G.
90	0.1	0.1	-	4400	-	2.7	0.023	5	29◐
		0.22	-	4700	-	2.4	0.013	6	35◐
		0.47	-	4800	-	2.3	0.007	8	41◐
	0.22	0.22	-	7000	-	1.6	0.001	6	39◐
		0.47	-	7400	-	1.4	0.006	9	45■
		1.0	-	7600	-	1.3	0.003	11	48★
	0.47	0.47	-	12000	-	0.9	0.006	9	48■
		1.0	-	13000	-	0.8	0.003	11	52★
		2.2	-	14000	-	0.7	0.002	13	55★
180	0.1	0.1	-	1800	-	4.0	0.025	18	40
		0.22	-	2000	-	3.5	0.013	25	47
		0.47	-	2200	-	3.1	0.006	32	52
	0.22	0.22	-	3000	-	2.4	0.012	24	53
		0.47	-	3500	-	2.1	0.006	34	59
		1.0	-	3900	-	1.8	0.003	39	63
	0.47	0.47	-	5800	-	1.3	0.006	30	62
		1.0	-	6700	-	1.1	0.003	39	66
		2.2	-	7400	-	1.0	0.002	45	68
300	0.1	0.1	-	1300	-	4.6	0.027	43	45
		0.22	-	1500	-	4.0	0.013	57	52
		0.47	-	1700	-	3.6	0.006	66	57
	0.22	0.22	-	2200	-	3.0	0.013	54	59
		0.47	-	2800	-	2.3	0.006	69	65
		1.0	-	3100	-	2.1	0.003	79	68
	0.47	0.47	-	4300	-	1.6	0.006	62	69
		1.0	-	5200	-	1.3	0.003	77	73
		2.2	-	5900	-	1.1	0.002	92	75

◐ At 2 volts (RMS) output. ■ At 3 volts (RMS) output. ★ At 4 volts (RMS) output

6AV6, 12AV6, 12AX7 6AX7, 20EZ7