

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	200	volts
Grid-No.2 (Screen-Grid) Voltage	125	volts
Plate Dissipation	10	watts
Grid-No.2 Input	1.25	watts

TYPICAL OPERATION

	Fixed Bias	Cathode Bias	
Plate Supply Voltage	110	200	volts
Grid-No.2 Supply Voltage	110	125	volts
Grid-No.1 (Control-Grid) Voltage	-7.5	—	volts
Peak AF Grid-No.1 Voltage	7.5	8.0	volts
Cathode-Bias Resistor	—	180	ohms
Zero-Signal Plate Current	49	46	mA
Maximum-Signal Plate Current	50	47	mA
Zero-Signal Grid-No.2 Current	4	2.2	mA
Maximum-Signal Grid-No.2 Current	10	8.5	mA
Plate Resistance (Approx.)	13000	28000	ohms
Transconductance	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion	10	10	per cent
Maximum-Signal Power Output	2.1	3.8	watts

50X6

Refer to chart at end of section.

50Y6GT

Refer to chart at end of section.

50Y7GT

Refer to chart at end of section.

50Z7G

Refer to chart at end of section.

53

Refer to chart at end of section.

60FX5

Refer to type 12FX5.

70L7GT

Refer to chart at end of section.

75

Refer to chart at end of section.

78

Refer to chart at end of section.

80

Refer to chart at end of section.

84/6Z4

Refer to chart at end of section.

117L7GT/M7GT

Refer to chart at end of section.

117N7GT

Refer to chart at end of section.

117P7GT

Refer to chart at end of section.

117Z3

Refer to chart at end of section.

117Z4GT

Refer to chart at end of section.

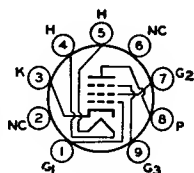
117Z6GT

Refer to chart at end of section.

5879

SHARP-CUTOFF PENTODE

Miniature type used as audio amplifier in the input stages of medium-gain public-address systems, home sound recorders, and audio systems. Outlines section, 6B; requires miniature 9-contact socket. For operation as resistance-coupled amplifier, refer to Resistance-Coupled Amplifier section.

**9AD**

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.15	ampere
Peak Heater-Cathode Voltage	±100 max	volts

Direct Interelectrode Capacitances:

Pentode Connection:

Grid No.1 to Plate	0.11 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	2.7	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	2.4	pF

Triode Connection*:

Grid No.1 to Plate	1.4	pF
Grid No.1 to Cathode and Heater	1.4	pF
Plate to Cathode and Heater	0.85	pF

* Grid No.2 and grid No.3 connected to plate.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Connection*	Pentode Connection	
Plate Voltage	275	330	volts
Grid-No.2 (Screen-Grid) Voltage	— See curve	page 98	
Grid-No.2 Supply Voltage	—	330	volts
Grid-No.1 (Control-Grid) Voltage:			
Negative-bias value	55	55	volts
Positive-bias value	0	0	volts
Plate Dissipation	1.7	1.25	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	0.25	watt
For grid-No.2 voltages between 165	— See curve	page 98	

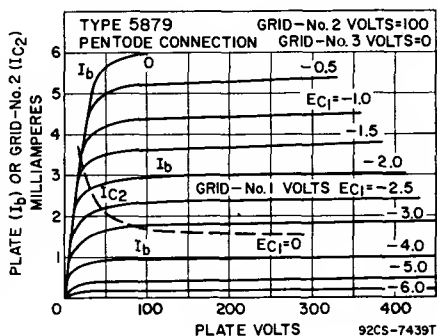
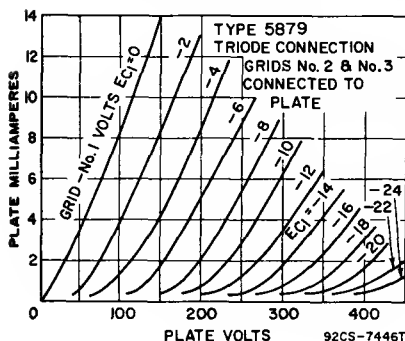
CHARACTERISTICS

Plate Voltage	100	250	250	volts
Grid No.3	—	—	Connected to cathode at socket	
Grid-No.2 Voltage	—	—	100	volts
Grid-No.1 Voltage	-3	-8	-3	volts
Amplification Factor	21	21	—	
Plate Resistance (Approx.)	0.017	0.0137	2	megohms
Transconductance	1240	1530	1000	μmhos
Plate Current	2.2	5.5	1.8	mA
Grid-No.2 Current	—	—	0.4	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μA	—	—	-8	volts

MAXIMUM CIRCUIT VALUE

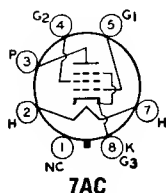
Grid-No.1-Circuit Resistance	2.2	megohms
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* Grid No.2 and grid No.3 connected to plate.



BEAM POWER TUBE

5881



Glass octal type used in the output stages of radio receivers and high-fidelity audio amplifiers. Outlines section, 29M; requires octal socket. For typical operation as push-pull class A₁, class AB₁ (within maximum ratings), and class AB₂ amplifier, and for curves of average plate characteristics, refer to type 6L6GC. Heater: volts (ac/dc), 6.3; amperes, 0.9; maximum heater-cathode volts, ± 200 peak.