

CHARACTERISTICS

	Triode Unit		Pentode Unit		
Plate Voltage	100	125	120	125	volts
Grid-No.2 Voltage	—	—	90	125	volts
Grid-No.1 Voltage	—	—1	—	—1	volt
Grid-No.1-Circuit Resistance	0.1	—	0.1	—	megohm
Amplification Factor	40	—	—	—	—
Plate Resistance	—	4700	—	20000	ohms
Transconductance	8700	8500	13000	11000	μ mhos
Plate Current	12.5	13	8.5	8	mA
Grid-No.2 Current	—	—	2.8	2.5	mA
Grid-No.1 Voltage for plate current of 20 μ A	—6	—	—2.5	—	volts

MAXIMUM CIRCUIT VALUES

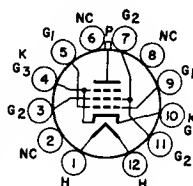
	Triode Unit		Pentode Unit		
Grid-No.1-Circuit Resistance:	0.5		0.25		megohm
For fixed-bias operation	1		0.5		megohm
For cathode-bias operation	—		—		—

6GY5

16GY5, 21GY5

BEAM POWER TUBE

Duodecar type used as horizontal-deflection amplifier in television receivers. Outlines section, 16A; requires duodecar 12-contact socket. Types 16GY5 and 21GY5 are identical with type 6GY5 except for heater ratings.

**12DR**

	6GY5	16GY5	21GY5	
Heater Voltage (ac/dc)	6.3	15.8	21	volts
Heater Current	1.5	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	11	seconds
Heater-Cathode Voltage:				
Peak value	± 200 max	± 200 max	± 200 max	volts
Average value	100 max	100 max	100 max	volts

Class A₁ Amplifier**CHARACTERISTICS**

	Pentode Connection		Triode† Connection		
Plate Voltage	5000	60	130	130	volts
Grid-No.2 (Screen-Grid) Voltage	130	130	130	130	volts
Grid-No.1 (Control-Grid) Voltage	—	0	—20	—20	volts
Amplification Factor	—	—	—	4.7	—
Plate Resistance (Approx.)	—	—	—	—	ohms
Transconductance	—	11000	—	—	μ mhos
Plate Current	—	9100	—	—	mA
Grid-No.2 Current	—	410**	—	50	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 μ A	—66	—	—33	—	volts

** This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

† Grid No.2 tied to plate.

Horizontal-Deflection Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	770	volts
Peak Positive-Pulse Plate Voltage#	6500	volts
Peak Negative-Pulse Plate Voltage	1500	volts
DC Grid-No.2 Voltage	220	volts
DC Grid-No.1 Voltage	—55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	800	mA
Average Cathode Current	230	mA
Plate Dissipation††	18	watts
Grid-No.2 Input	3.5	watts
Bulb Temperature (At hottest point)	220	°C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	1	megohm
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

†† A bias resistor or other means is required to protect the tube in absence of excitation.