

DC Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	1200	mA
Average Cathode Current	350	mA
Grid-No.2 Input	5	watts
Plate Dissipation [■]	30	watts
Bulb Temperature (At hottest point)	240	°C

MAXIMUM CIRCUIT VALUES

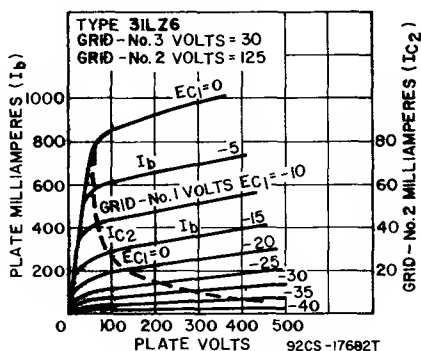
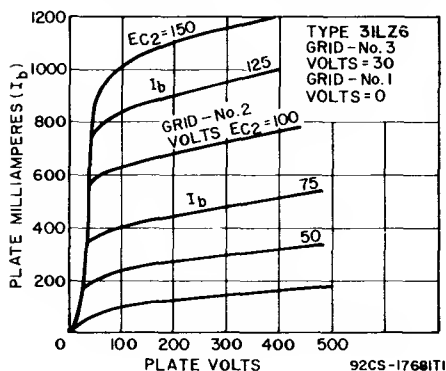
Grid-No.1-Circuit Resistance:		
For cathode-bias operation	1	megohm
For grid-leak-bias operation	10	megohms
For fixed-bias operation	0.47	megohm

Pulse duration must not exceed 15% of one horizontal scanning cycle (10 microseconds).
 † Grid No.2 connected to plate.

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

■ In this service, a positive value may be applied to grid No.3 to minimize "snivets" interference; a typical value for this voltage is 30 volts.

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



32
 32ET5
 32ET5A

Refer to chart at end of section.

Refer to chart at end of section.

32HQ7

Refer to chart at end of section.

32L7GT

Refer to chart at end of section.

33

Refer to chart at end of section.

33GT7

Refer to chart at end of section.

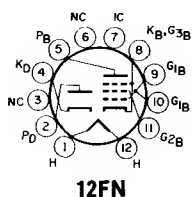
33GY7

Refer to chart at end of section.

33GY7A DIODE-BEAM POWER TUBE

50GY7A

Duodecar type used as combined damper diode and horizontal-deflection amplifier in television receivers. Socket terminals 1, 3, 6 and 7 should not be used as tie points. Outlines section, 15A; requires duodecar 12-contact socket. Type 50GY7A is identical with type 33GY7A except for heater ratings.



	33GY7A	50GY7A	
Heater Voltage (ac/dc)	33.6	50	volts
Heater Current	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Beam Power Unit as 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	—22.5	—22.5	volts
Amplification Factor	—	—	—	4	
Plate Resistance (Approx.)	—	—	10000	—	ohms
Transconductance	—	—	6500	—	μmhos
Plate Current	—	320*	48	—	mA
Grid-No.2 Current	—	22*	2.9	—	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—80	—	—40	—	volts

* Grid No.2 tied to plate.

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

Beam Power Unit as Horizontal-Deflection Amplifier

For operation in a 525-line, 50-frame system

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	400	volts
Peak Positive-Pulse Plate Voltage#	5000	volts
Peak Negative-Pulse Plate Voltage	0	volts
DC Grid-No.2 Voltage	150	volts
DC Grid-No.1 Voltage	—55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	540	mA
Average Cathode Current	155	mA
Plate Dissipation†	9	watts
Grid-No.2 Input	3	watts

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.

Damper Service (Diode Unit)

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

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	4200	volts
Peak Plate Current	810	mA
Average Plate Current	135	mA
Plate Dissipation	3.8	watts
Heater-Cathode Voltage:		
Peak value	±200	—4200
Average value	±100	—400
Bulb Temperature (At hottest point)	200	°C

CHARACTERISTICS, Instantaneous Value

Tube Voltage Drop for plate current of 250 mA	21	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

Refer to type 6JR6.

33JR6

Refer to chart at end of section.

33JV6

Refer to chart at end of section.

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Refer to type 6CE3/6CD3/6DT3.

34CE3

Refer to chart at end of section.

34CM3