

HORIZONTAL AMPLIFIER BEAM-POWER PENTODE TYPES 6JZ6 AND 21JZ6

The 6JZ6 and 21JZ6 are 12-pin button based beam-power pentode types designed for service as output amplifier in horizontal deflection circuits in television receivers. They feature a separate grid 3 connection to help control snivets.

The 21JZ6 has been designed for use in receivers which employ series connected heaters. When employed in this type of circuit, heater voltage surges are minimized because heater warm-up characteristic is controlled.

ELECTRICAL

Cathode.....	Coated Unipotential	
Filament:	6JZ6	21JZ6
Voltage (ac or dc).....	6.3±10%	21 Volts
Current.....	1.5	0.45±6% Ampere
Warm-up Time (Note 1).....	—	11 Seconds
Direct Interelectrode Capacitances (Unshielded):		
Grid 1 to Plate.....	0.34	pF
Input.....	24	pF
Output.....	8.5	pF

MECHANICAL

Bulb.....	T-12
Base.....	EIA E12-74
Outline.....	EIA 12-79
Basing.....	EIA 12GD
Top Cap.....	C1-3, Skirted Miniature
Mounting Position.....	Any

HORIZONTAL DEFLECTION AMPLIFIER (Note 2)

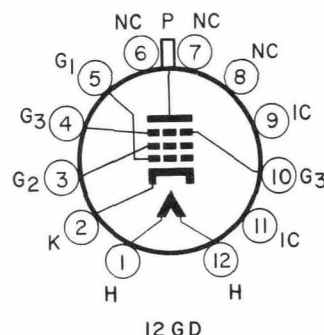
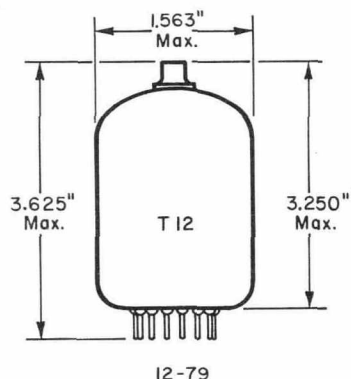
MAXIMUM RATINGS

Design Maximum Values

DC Plate Supply Voltage		
(Boost + DC Power Supply).....	770 max.	Volts
Peak Positive Plate Voltage.....	6500 max.	Volts
Peak Negative Pulse Plate Voltage.....	1500 max.	Volts
Plate Dissipation (Note 3).....	18 max.	Watts
Positive DC Beam-Plate Voltage.....	70 max.	Volts
Negative DC Grid 1 Voltage.....	55 max.	Volts
Peak Negative Grid 1 Voltage.....	330 max.	Volts
DC Grid 2 Voltage.....	220 max.	Volts
Grid 2 Dissipation.....	3.5 max.	Watts
Average Cathode Current.....	230 max.	mA
Peak Cathode Current.....	800 max.	mA
Grid 1 Circuit Resistance (Note 4).....	1.0 max.	Megohm
Bulb Temperature (At Hottest Point).....	220 max.	°C

Heater-Cathode Voltage:

Heater Negative with Respect to Cathode		
Total DC + Peak.....	200 max.	Volts
Heater Positive with Respect to Cathode		
DC Component.....	100 max.	Volts
Total DC + Peak.....	200 max.	Volts



AVERAGE CHARACTERISTICS

PENTODE OPERATION

Plate Voltage	130	Volts
Grid 2 Voltage	130	Volts
Grid 1 Voltage	-20	Volts
Plate Current	46	mA
Grid 2 Current	1.8	mA
Transconductance	9000	μ mhos
Plate Resistance	9900	Ohms

ZERO BIAS

Plate Voltage	50	Volts
Grid 2 Voltage	130	Volts
Plate Current (Note 5)	450	mA
Grid 2 Current (Note 5)	29	mA

CUTOFF

Plate Voltage	130	5000	Volts
Grid 2 Voltage	130	130	Volts
Plate Current	1	1	mA
Grid 1 Voltage (Approx.)	-32	-64	Volts

TRIODE AMPLIFICATION FACTOR

Plate Voltage	130	Volts
Grid 2 Voltage	130	Volts
Grid 1 Voltage	-20	Volts
Amplification Factor	4.8	—

NOTES

1. Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times rated heater voltage divided by rated heater current.
2. For operation in a 525-line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission." The duty cycle of the voltage pulse not to exceed 15% of the scanning cycle.
3. In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
4. Using grid-leak bias.
5. These values can be measured by a method involving a recurrent waveform that such the plate and grid 2 dissipation will be kept within ratings to prevent damage to the tube.