

HORIZONTAL AMPLIFIER BEAM-POWER PENTODE TYPE 6JS6A

The 6JS6A is a 12-pin button based beam-power pentode type designed for service as output amplifier in horizontal deflection circuits in color television receivers. The 6JS6A is unilaterally interchangeable with the type 6JS6 and differs in having a lower plate knee voltage. Separate terminals for the beam plates can be used to minimize snivets.

ELECTRICAL

Cathode.....	Coated Unipotential
Filament:	
Voltage (ac or dc)	6.3±0.6 Volts
Current	2.25 Ampere
Direct Interelectrode Capacitances (Unshielded):	
Grid 1 to Plate	0.7 pF
Input.....	24 pF
Output.....	10 pF

MECHANICAL

Bulb	T-12
Base	EIA E12-74
Outline	EIA 12-89
Basing	EIA 12FY
Top Cap.	C1-3, Skirted Miniature
Mounting Position	Any

HORIZONTAL DEFLECTION AMPLIFIER (Note 1)

MAXIMUM RATINGS

Design Maximum Values

DC Plate Supply Voltage	
(Boost + DC Power Supply)	990 max. Volts
Peak Positive Plate Voltage (Abs.)	7500 max. Volts
Peak Negative Pulse Plate Voltage	1100 max. Volts
Positive DC Beam Plate Voltage	70 max. Volts
DC Grid 2 Voltage	190 max. Volts
Peak Negative Grid 1 Voltage	250 max. Volts
Plate Dissipation (Note 2)	28 max. Watts
Grid 2 Dissipation	5.5 max. Watts
Average Cathode Current	315 max. mA
Peak Cathode Current	1100 max. mA
Grid 1 Circuit Resistance (Note 3)	1.0 max. Megohm
Bulb Temperature (At Hottest Point)	225 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

Beam Plates Connected to Cathode

PENTODE OPERATION

Plate Voltage	175 Volts
Grid 2 Voltage	125 Volts
Grid 1 Voltage	-25 Volts
Plate Current	125 mA
Grid 2 Current	4.5 mA
Transconductance	11300 μ mhos
Plate Resistance	5600 Ohms

ZERO BIAS

Plate Voltage (Note 4)	62 Volts
Grid 2 Voltage (Note 4)	125 Volts
Plate Current (Note 5)	570 mA
Grid 2 Current (Note 5)	34 mA

CUTOFF

Plate Voltage	175 5000 Volts
Grid 2 Voltage	125 125 Volts
Plate Current	1 1 mA
Grid 1 Voltage (Approx.)	-54 -140 Volts

TRIODE AMPLIFICATION FACTOR

Plate Voltage	125 Volts
Grid 2 Voltage	125 Volts
Grid 1 Voltage	-25 Volts
Amplification Factor	3 -

NOTES

- 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.
- 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.
- Using grid-leak bias.
- Applied for short interval (maximum of 2 seconds) so as not to damage tube.
- 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.

