

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	5000	250 Volts
Grid No. 2 Voltage	150	150 Volts
Grid No. 1 Voltage	—	-22.5 Volts
Plate Current	—	70 Ma
Grid No. 2 Current	—	2.4 Ma
Transconductance	—	7300 μ mhos
Plate Resistance	—	150,000 Ohms
Amplification Factor ⁽¹⁾	—	4.4
Ec1 for Ib = 1.0 Ma (Approx.)	-100	-42 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 55 V; Ec2 = 150 V and Ec1 = 0 V

Ib = 345 Ma, and Ic2 = 30 Ma

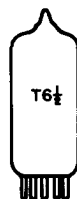
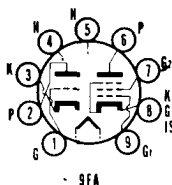
NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) 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.
- (3) Amplification factor with tube operating as a triode with 150 volts on the plate and Grid No. 2 and -22.5 volts on Grid No. 1.

HORIZONTAL DEFLECTION OSC. and GENERAL PURPOSE TRIODE

6JN8**12JN8, 19JN8****Medium Mu Triode and Sharp Cutoff Pentode**

Construction Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9FA
 Outline 6-2
 Maximum Diameter 0.875 In.
 Maximum Seated Height 1.937 In.
 Maximum Overall Height 2.187 In.

**ELECTRICAL DATA****HEATER OPERATION**

	19JN8	12JN8	6JN8
Heater Voltage.....	18.9	12.6	6.3 Volts
Heater Current	150	225	450 Ma
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total DC and Peak.....			200 Volts
Heater Positive with Respect to Cathode			
DC			100 Volts
Total DC and Peak.....			200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)⁽¹⁾**Pentode Section**

Grid No. 1 to Plate (Max.) (g1 to p)	0.01 Pf
Input: Pg1 to (h + Pk + Pg2 + Pg3 + IS)	5.5 Pt
Output: Pp to (h + Pk + Pg2 + Pg3 + IS)	3.4 Pf

Triode Section

Grid to Plate (g to p)	1.7 Pf
Input: g to (h + Tk + Pk + Pg3 + IS)	3.2 Pf
Output: p to (h + Tk + Pk + Pg3 + IS)	2.2 Pf

RATINGS (Design Maximum Rating System)

	Pentode Section	Triode Section
Plate Voltage (Max.)	300	300 Volts
Screen Supply Voltage (Max.)	300	— Volts
Screen Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive DC Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.)	2.5	2.5 Watts
Screen Dissipation (Max.)	0.55	— Watts
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	2.2	2.2 Megohms
Cathode Bias (Max.)	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Pentode Section	Triode Section
Plate Voltage	125	125 Volts
Screen Voltage	125	— Volts
Grid No. 1 Voltage	-1.0	-1.0 Volts
Amplification Factor	—	46
Plate Resistance (Approx.)	200,000	5400 Ohms
Transconductance	7500	8500 μ mhos
Plate Current	12	13.5 Ma
Screen Current	4.0	— Ma
Grid No. 1 Voltage (Approx.)		
$I_b = 10 \mu$ a	-8	-8 Volts

NOTE:

(1) With external shield (EIA 315) connected to cathode of section under test.

6JS6C

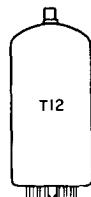
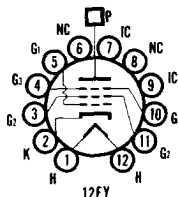
12JS6, 23JS6A, 31JS6C

Color Television Type

**HORIZONTAL DEFLECTION
AMPLIFIER**

Beam Power Pentode

Construction.....Compactron T-12
 Base Button 12 Pin, E12-74
 Top Cap C1-1
 Basing 12FY
 Outline 12-89
 Maximum Diameter 1.563 In.
 Maximum Seated Height 3.750 In.
 Maximum Overall Height 4.125 In.



ELECTRICAL DATA

HEATER OPERATION

	12JS6	31JS6C	23JS6A	6JS6C
Heater Voltage.....	12.6	31.5	23.6	6.3 Volts
Heater Current	1125	450	600	2250 Ma
Heater Warm-up Time	—	11	11	— Seconds
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total DC and Peak.....				200 Volts
Heater Positive with Respect to Cathode				
DC				100 Volts
Total DC and Peak.....				200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate	0.7 Pf
Input: g_1 to $(h + k + g_2 + bp)$	24 Pf
Output: p to $(h + k + g_2 + bp)$	10 Pf

RATINGS (Design Maximum Rating System)

Horizontal Deflection Amplifier⁽¹⁾

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	990 Volts
Peak Positive Plate Voltage (Max.)	7500 Volts
Peak Negative Plate Voltage (Max.)	1200 Volts
Positive DC Beam Plate Voltage (Max.)	75 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Plate Dissipation (Max.) ⁽²⁾	30 Watts
Grid No. 2 Input (Max.)	5.5 Watts
Average Cathode Current (Max.)	350 Ma
Peak Cathode Current (Max.)	1200 Ma
Grid No. 1 Circuit Resistance (Max.) ⁽²⁾	0.47 Megohms
Grid No. 1 Circuit Resistance ⁽⁴⁾	10.0 Megohms
Bulb Temperature (At Hottest Point) (Max.)	225 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	175 Volts
Beam Plate Voltage	Connected to Cathode at Socket
Grid No. 2 Voltage	125 Volts
Grid No. 1 Voltage	-25 Volts