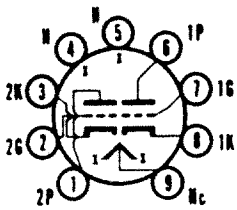
12BH7A

Color Television Type

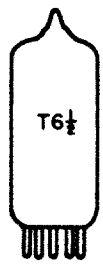
VERTICAL or HORIZ. DEFLECTION OSCILLATOR and AMPLIFIER

Double Low Mu Triode

Construction .....Miniature T-6½
Base .....Button 9 Pin, E9-1
Basing(2) 9A
Outline 6-3
Maximum Diameter .....0.875 In.
Maximum Seated Height .....2.375 In.
Maximum Overall Height .....2.625 In.



9A



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	12.6/6.3 Volts
Heater Current	300/600 Ma
Heater Warm-up Time(1)	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)

	Section 1(2)	Section 2
Grid to Plate	2.6	2.6 Pf
Input	3.2	3.2 Pf
Output	0.5	0.4 Pf
Plate to Plate	0.8	Pf

RATINGS (Design Center Rating System)

	Vertical Deflection Amplifier	Class A1 Amplifier
Plate Voltage (Max.)	450	300 Volts
Peak Positive Plate Voltage (Abs. Max.)	1500	— Volts
Plate Dissipation (Each Plate) (Max.)	3.5	3.5 Watts
Peak Negative Pulse Grid Voltage (Max.)	250	— Volts
Average Cathode Current (Each Section)	20	20 Ma
Peak Cathode Current (Max.)	70	— Ma
Grid Circuit Resistance		
Fixed Bias (Max.)	—	0.25 Megohm
Cathode Bias (Max.)	2.2	1.0 Megohms

	Vertical(3) Deflection Oscillator	Horizontal(3) Deflection Oscillator
DC Plate Voltage (Max.)	450	450 Volts
Plate Dissipation		
Each Plate (Max.)	3.5	3.5 Watts
Both Plates (Max.)	7.0	7.0 Watts
Peak Negative Grid Voltage (Max.)	400	600 Volts
Average Cathode Current (Max.)	20	20 Ma
Peak Cathode Current (Max.)	70	300 Ma
Grid Circuit Resistance (Max.)	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	250 Volts
Grid Voltage	−10.5 Volts
Plate Current	11.5 Ma
Transconductance	3100 μmhos
Amplification Factor	16.5
Grid Voltage for Ib = 50 μa	−23 Volts
Plate Resistance (Approx.)	5300 Ohms

NOTES:

(1) Applies to parallel connection only.
(2) Section 1 connects to pins 6, 7, and 8.
(3) 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.

AVERAGE PLATE CHARACTERISTICS