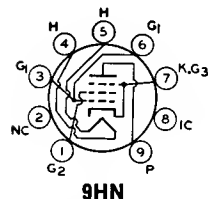


MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1	megohm
For cathode-bias operation	1	megohm



9HN

BEAM POWER TUBE

6DT5

12DT5

Miniature type used as a vertical-deflection-amplifier tube in television receivers employing 110-degree picture-tube systems. Outlines section, 6E; requires miniature 9-contact socket. Type 12DT5 is identical with type 6DT5 except for heater ratings.

	6DT5	12DT5	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	1.2	0.6	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

CHARACTERISTICS

Plate Voltage	60	80	250	volts
Grid-No. 2 Voltage	150	250	250	volts
Grid-No.1 Voltage	0	0	—16.5	volts
Transconductance	—	—	6200	μmhos
Plate Current	95•	195•	44	mA
Grid-No.2 Current	8.5•	19•	1.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 100 mA	—	—	—35	volts

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

Vertical-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Voltage	315	volts
Peak Positive-Pulse Plate Voltage*	2200	volts
Grid-No.2 (Screen-Grid) Voltage	285	volts
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	250	volts
Peak Cathode Current	190	mA
Average Cathode Current	55	mA
Plate Dissipation	9	watts
Grid-No.2 Input	2	watts

MAXIMUM CIRCUIT VALUES

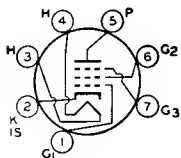
Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.5	megohm
For cathode-bias operation	1	megohm

Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

Refer to chart at end of section.

6DT6



7EN

SHARP-CUTOFF PENTODE

6DT6A

3DT6A, 4DT6A

Miniature type used as FM detector in color and black-and-white television receivers. Outlines section, 5C; requires miniature 7-contact socket. Types 3DT6A and 4DT6A are identical with type 6DT6A except for heater ratings.

	3DT6A	4DT6A	6DT6A	
Heater Voltage (ac/dc)	3.15	4.2	6.3	volts
Heater Current	0.6	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	11	—	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts

Direct Interelectrode Capacitances (Approx.)*

Grid No.1 to Plate	0.02	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5.8	pF
Grid No.3 to Plate	1.7	pF
Grid No.1 to Grid No.3	0.1	pF
Grid No.3 to Cathode, Heater, Grid No.1, Grid No.2, and Internal Shield	6.1	pF

* External shield connected to cathode.

Class A₁ Amplifier

CHARACTERISTICS

Plate Supply Voltage	150	volts
Grid No.3 (Suppressor Grid)	Connected to cathode at socket	
Grid-No.2 (Screen-Grid) Supply Voltage	100	volts
Cathode-Bias Resistor	560	ohms
Plate Resistance (Approx.)	0.15	megohm
Transconductance, Grid No.1 to Plate	1350	μ mhos
Transconductance, Grid No.3 to Plate	515	μ mhos
Plate Current	1.55	mA
Grid-No.2 Current	1.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	-5.2	volts
Grid-No.3 Voltage (Approx.) for plate current of 10 μ A	-4.2	volts

FM Detector

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid-No.3 Voltage	28	volts
Grid-No.2 Supply Voltage	330	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	1.7	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	1.1	watts
For grid-No.2 voltages between 165 and 330 volts	See curve page 98	

MAXIMUM CIRCUIT VALUES

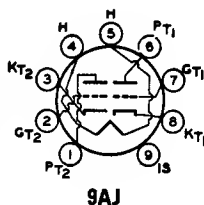
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	0.5	megohm

6DT8

12DT8

HIGH-MU TWIN TRIODE

Miniature type used in radio and television receiver applications and in push-pull rf amplifiers or as frequency converter in FM tuners. Outlines section, 6B; requires miniature 9-contact socket. Type 12DT8 is identical with type 6DT8 except for the heater ratings. Except for heater and heater-cathode ratings, interelectrode capacitances, and basing arrangement, these types are identical with miniature type 12AT7.



	6DT8	12DT8	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	0.3	0.15	ampere
Heater-Cathode Voltage:			
Peak value	± 200 max	± 200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx., Each Unit Except as Noted:			
Grid to Plate	1.6*	1.6*	pF
Grid to Cathode, Heater, and Internal Shield	2.7*	2.7*	pF
Plate to Cathode, Heater, and Internal Shield	1.6*	1.6*	pF
Heater to Cathode	3*	3*	pF
Cathode to Grid, Heater, and Internal Shield (Unit No.2)	5.3†	5.3†	pF
Plate to Grid, Heater, and Internal Shield (Unit No.2)	2.8†	2.8†	pF

† With external shield connected to grid of unit under test.

* With external shield connected to ground.

* With external shield connected to cathode of unit under test.