

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:°

For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.2	megohm

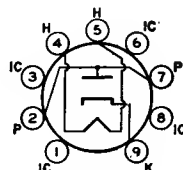
• For operation at metal-shell temperatures up to 135°C.

6DW4

Refer to chart at end of section.

6DW4A**6DW4B**

12DW4A

**HALF-WAVE
VACUUM RECTIFIER****9HP**

Novar types used as damper tubes in horizontal-deflection circuits of color and black-and-white television receivers. Outlines section, 11D and 30B, respectively; require novar 9-contact socket. Socket terminals 1, 3, 6, and 8 should not be used as tie points; it is recommended that socket clips for these pins be removed to reduce the possibility of arc-over and to minimize leakage. These tubes, like other power-handling tubes, should be adequately ventilated. Type 12DW4A is identical with type 6DW4A except for heater ratings. Type 6DW4B is identical with type 6DW4A except for heater-cathode voltages.

	6DW4A 6DW4B	12DW4A	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	1.2	0.6	amperes
Heater Warm-up Time	—	11	seconds
Direct Interelectrode Capacitances (Approx.):			
Plate to Cathode and Heater		6.5	pF
Cathode to Plate and Heater		9	pF
Heater to Cathode		2.8	pF

Damper Service

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

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	5500	volts
Peak Plate Current	1300	mA
Average Plate Current	250	mA
Plate Dissipation	8.5	watts

Heater-Cathode Voltage:

	6DW4B	
Peak value	+300 —5000	volts
Average value	+100 —900	volts

CHARACTERISTICS, Instantaneous Value

Tube Voltage Drop for plate current of 350 mA	25	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

6DW5

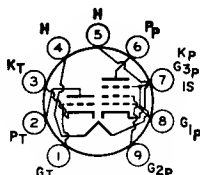
Refer to chart at end of section.

6DX8

Refer to chart at end of section.

**6DX8/
ECL84**

10DX8/LCL84

**HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE****9HX**

Miniature type used in color and black-and-white television-receiver applications. The triode unit is used as a sync-separator, sync-amplifier, keyed-age, or noise-suppressor tube. The pentode unit is used as a video-output tube. Outlines section, 6E; requires miniature 9-contact socket. Type 10DX8/LCL84 is identical with type 6DX8/ECL84 except for heater ratings.

	6DX8/ECL84	10DX8/LCL84	
Heater Voltage (ac/dc)	6.3	10.2	volts
Heater Current	0.72	0.45	ampere
Peak Heater-Cathode Voltage	±200 max	±200 max	volts

Class A₁ Amplifier

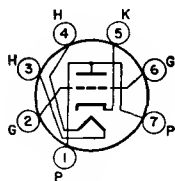
MAXIMUM RATINGS (Design-Center Values)	Triode Unit	Pentode Unit	
Plate Supply Voltage	550	550	volts
Peak Plate Voltage, with maximum plate current of 0.1 mA	600	—	volts
Plate Voltage	300	300	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	550	volts
Grid-No.2 Voltage	—	300	volts
Cathode Current	12	40	mA
Plate Dissipation	1	4	watts
Grid-No.2 Input	—	1.7	watts

CHARACTERISTICS	Triode Unit	Pentode Unit	
Plate Voltage	200	170	200
Grid-No.2 Voltage	—	170	200
Grid No.1 Voltage	—1.7	—2.1	—3.4
Amplification Factor	65	—	—
Mu-Factor, Grid-No.2 to Grid-No.1	—	36	36
Plate Resistance (Approx.)	—	0.1	0.13
Transconductance	4000	11000	10400
Plate Current	3	18	18
Grid-No.2 Current	—	3	3

MAXIMUM CIRCUIT VALUES

Grid-No.1- Circuit Resistance:	Triode Unit	Pentode Unit	
For fixed-bias operation	1	1	megohm
For cathode-bias operation	3	2	megohms

• With maximum duty factor of 0.18 and maximum pulse duration of 18 microseconds.



7DK

MEDIUM-MU TRIODE

6DZ4

Miniature type used as a local-oscillator tube in uhf color and black-and-white television receivers covering the frequency range from 470 to 890 MHz. Outlines section, 5B; requires miniature 7-contact socket. For curve of average plate characteristics, refer to type 6AF4A.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.225	ampere
Heater-Cathode Voltage:		
Peak value	±50 max	volts
Average value	25 max	volts
Direct Interelectrode Capacitances (Approx.):°		
Grid to Plate	1.8	pF
Grid to Cathode and Heater	2.2	pF
Plate to Cathode and Heater	1.3	pF

° With external shield connected to cathode.

Class A₁ Amplifier

CHARACTERISTICS		
Plate Supply Voltage	80	volts
Plate Resistor	2700	ohms
Amplification Factor	14	
Plate Resistance (Approx.)	2000	ohms
Transconductance	6700	μmhos
Plate Current	15	mA
Grid Voltage (Approx.) for plate current of 20 μA	—11	volts

UHF Oscillator

MAXIMUM RATINGS (Design-Maximum Values)		
Plate Voltage	135	volts
Grid Voltage, Negative-bias value	50	volts
Grid Current	2	mA
Cathode Current	20	mA
Plate Dissipation	2.3	watts