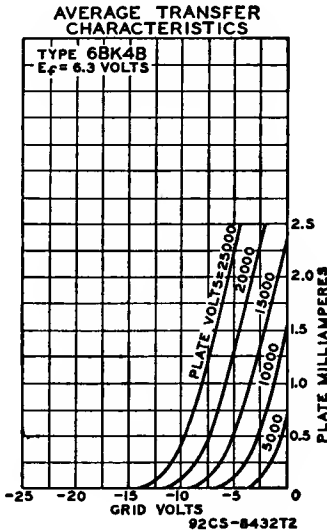


CHARACTERISTICS RANGE VALUES

	Note	Min	Max	
Grid Voltage (1)	1	-7	—	volts
Grid Voltage (2)	2	—	-40	volts
Grid-Voltage Change	3	—	9	volts

Note 1: With dc plate voltage of 30000 volts and dc plate current of 1 mA.
Note 2: With dc plate voltage of 30000 volts and dc plate current of 0.1 mA.
Note 3: Difference between grid voltage (1) and grid voltage (2).

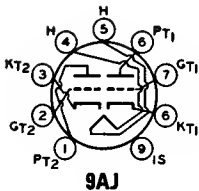


Refer to chart at end of section.

6BK5

Refer to chart at end of section.

6BK7A



MEDIUM-MU TWIN TRIODE

6BK7B

5BK7A

Miniature type used as a cascode amplifier in vhf color and black-and-white television tuners and in push-pull cathode-drive rf amplifiers. Outlines section, 6B; requires miniature 9-contact socket. For typical operation as a resistance-coupled amplifier, refer to Resistance-Coupled Amplifier section. Type 5BK7A is identical with type 6BK7B except for heater ratings.

	5BK7A	6BK7B	
Heater Voltage (ac/dc)	4.7	6.3	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200*max	±200*max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:	Unit No.1	Unit No.2	
Grid to Plate	1.8	1.8	pF
Grid to Cathode, Heater, and Internal Shield	3	3	pF
Plate to Cathode, Heater, and Internal Shield	1	0.9	pF
Cathode to Grid, Heater, and Internal Shield	6	6	pF
Plate to Grid, Heater, and Internal Shield	2.4	2.4	pF

Plate to Cathode	0.22	0.22	pF
Heater to Cathode	2.8	3	pF
Grid of Unit No.1 to Grid of Unit No.2		0.004 max	pF
Plate of Unit No.1 to Plate of Unit No.2		0.075 max	pF

* Rating may be as high as 300 volts under cutoff conditions when tube is used as a cascade amplifier, the units are connected in series, and heater is negative with respect to cathode.

Class A₁ Amplifier (Each Unit)

MAXIMUM RATINGS (Design-Center Value)

Plate Voltage	300	volts
Grid Voltage, Negative-bias value	50	volts
Plate Dissipation	2.7	watts

CHARACTERISTICS

Plate Supply Voltage	150	volts
Cathode-Bias Resistor	56	ohms
Amplification Factor	43	
Plate Resistance (Approx.)	4600	ohms
Transconductance	9300	μmhos
Plate Current	18	mA
Grid Voltage (Approx.) for plate current of 10 μA	-11	volts

6BL4

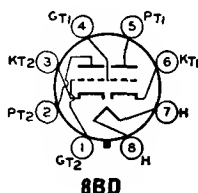
Refer to chart at end of section.

6BL7GT

Refer to chart at end of section.

6BL7GTA MEDIUM-MU TWIN TRIODE

Glass octal type used as combined vertical-deflection amplifier and vertical-deflection oscillator in color and black-and-white television receivers. When so operated, it is recommended that unit No.1 (pins 4, 5, and 6) be used as the oscillator. Outlines section, 13D; requires octal socket.



8BD

Heater Voltage (ac/dc)	6.3	volts	
Heater Current	1.5	amperes	
Heater-Cathode Voltage:			
Peak value	±200 max	volts	
Average value	100 max	volts	
Direct Interelectrode Capacitances (Approx.):	Unit No. 1	Unit No. 2	
Grid to Plate	6	6	pF
Grid to Cathode and Heater	4.2	4.6	pF
Plate to Cathode and Heater	0.9	0.9	pF

Class A₁ Amplifier

CHARACTERISTICS (Each Unit)

Plate Voltage	150	250	250	volts
Grid Voltage	0	-17	-9	volts
Amplification Factor	—	—	15	
Plate Resistance (Approx.)	—	—	2150	ohms
Transconductance	—	—	7000	μmhos
Plate Current	65*	4	40	mA
Grid Voltage (Approx.) for plate current of 50 μA	—	—	-23	volts

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

Vertical-Deflection Oscillator or Amplifier*

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

MAXIMUM RATINGS (Design-Center Values)	Oscillator	Amplifier	
DC Plate Voltage	500	500	volts
Peak Positive-Pulse Plate Voltage# (Absolute Maximum)	—	2000Δ	volts
Peak Negative-Pulse Grid Voltage	400	250	volts
Peak Cathode Current	210	210	mA
Average Cathode Current	60	60	mA
Plate Dissipation:			
For either plate	10	10	watts
For both plates with both units operating	12	12	watts
MAXIMUM CIRCUIT VALUES			
Grid-Circuit Resistance	4.7	4.7†	megohms