

Plate Current	13.5	8	mA
Plate Current for grid voltage of -12.5 volts	—	1.7	mA
Grid Voltage (Approx.) for plate current of 10 μ A ..	-7	-18	volts
MAXIMUM CIRCUIT VALUE			
Grid-Circuit Resistance		1	megohm

Triode Unit as Vertical-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

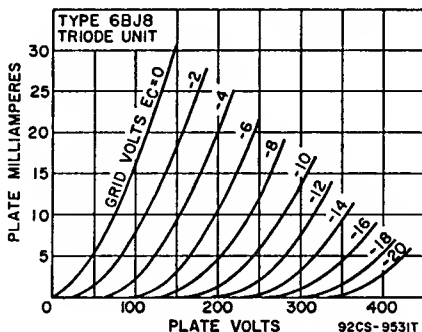
DC Plate Voltage	330	volts
Peak Positive-Pulse Plate Voltage#	1200	volts
Peak Negative-Pulse Grid Voltage	275	volts
Peak Cathode Current	77	mA
Average Cathode Current	22	mA
Plate Dissipation	4	watts

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance, for cathode-bias operation	2.2	megohms
# Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).		

Diode Units**MAXIMUM RATINGS (Design-Maximum Values)**

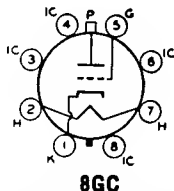
Plate Current (Each Unit):		
Peak	54	mA
Average	9	mA



Refer to chart at end of section.

6BK4
6BK4A
6BK4B

6BK4C/
6EL4A

BEAM TRIODE**8GC**

Glass octal type used for the voltage regulation of high-voltage, low-current dc power supplies in color and black-and-white television receivers. Outlines section, 21B; requires octal socket. Socket terminals 3, 4, 6, and 8 should not be used for tie points. For high voltage and X-ray safety considerations, refer to page 93.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.2	ampere
Peak Heater-Cathode Voltage	—450* max	volts
Direct Interelectrode Capacitances (Approx.):†		
Grid to Plate	0.03	pF
Grid to Cathode and Heater	2.6	pF
Plate to Cathode and Heater	1	pF

Shunt Voltage-Regulator Service

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Voltage	27000	volts
Unregulated DC Supply Voltage	60000	volts
DC Grid Voltage	-135	volts
Peak Grid Voltage*	-440	mA
Average Plate Current	1.6	mA
Plate Dissipation	40	watts

TYPICAL OPERATION

Unregulated DC Supply Voltage	36000	volts
Equivalent Resistance of Unregulated Supply	11	megohms
Voltage Divider Values:		
R ₁ (5 watts)	220	megohms
R ₂ (2 watts)	1	megohm
R ₃ (0.5 watt)	0.82	megohm
DC Reference Voltage Supply	200	volts
Equivalent Resistance of Reference Voltage	1000	ohms
Effective Grid-Plate Transconductance	200	μmhos
DC Plate Current for Load Current of 0 mA	1000	μA
DC Plate Current for Load Current of 1 mA	45	μA
Regulated DC Output Voltage for Load Current of 0 mA	25000	volts
Regulated DC Output Voltage for Load Current of 1 mA	24500	volts

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance	3	megohms
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* For interval of 20 seconds maximum duration during equipment warm-up period.

X-RADIATION CHARACTERISTIC

X-Radiation, Maximum:

Statistical value controlled on a lot sampling basis	0.5	mR/hr
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CHARACTERISTICS RANGE VALUES

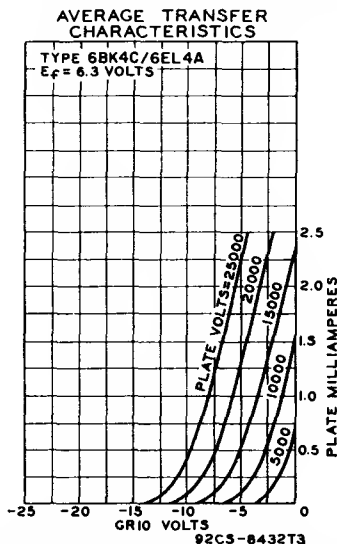
	Note	Min	Max	
Grid Voltage (1)	1	-7	—	volts
Grid Voltage (2)	2	—	-40	volts
Grid-Voltage Change	3	—	9	volts

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).

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.



* Series impedance should be used with the cathode to limit the cathode current under prolonged short-circuit conditions to 450 mA.

† Without external shield.