

MECHANICAL DATA

Bulb	T-12
Base	B8-71, Short Jumbo Shell Octal, 8-Pin
Top Cap	C1-1, Small
Outline	See Drawing
Basing	8GC
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	6.3 Volts
Heater Current	200 Ma
Peak Heater-Cathode Voltage	
Heater Negative with respect to Cathode	225 Volts Max.
Heater Positive with Respect to Cathode	Not Recommended

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate	.03 μf
Input	2.6 μf
Output	1.0 μf Max.

RATINGS (Design Center Values)

Voltage Control Service		
DC Plate Voltage	25000 Volts	Max.
Unregulated DC Supply Voltage	55000 Volts	Max.
Grid Voltage		
DC	-125 Volts	Max.
Peak	-400 Volts	Max.
DC Plate Current	1.5 Ma	Max.
Plate Dissipation	25 Watts	Max.
Grid Circuit Resistance	3 Megohms	Max.

CHARACTERISTICS

Amplification Factor	2000
--------------------------------	------

TYPICAL OPERATION

Shunt Voltage Regulator

Unregulated Supply

DC Voltage	36000 Volts
Equivalent Resistance	11 Megohms

Voltage Divider Values

R1 (5 watts)	220 Megohms
R2 (2 watts)	1 Megohm
R3 ($\frac{1}{2}$ watt)	.82 Megohm

Reference Voltage Supply

DC Value	200 Volts
Equivalent Resistance	1000 Ohms
Effective Grid-Plate Transconductance	200 μmhos

DC Plate Current

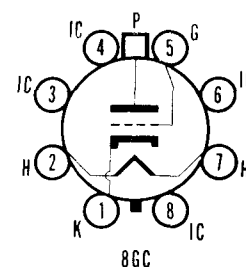
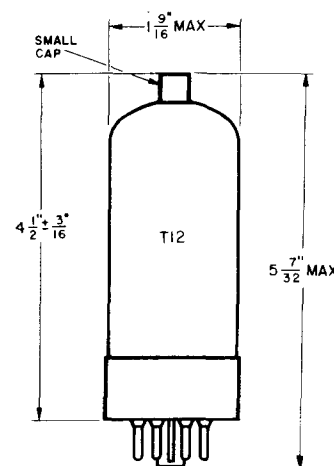
For Load Current of 0 Ma	1000 μa
For Load Current of 1 Ma	45 μa

Regulated DC Output Voltage

For Load Current of 0 Ma	25000 Volts
For Load Current of 1 Ma	24500 Volts

QUICK REFERENCE DATA

The Sylvania Type 6BK4 is a low current, sharp cutoff, beam triode designed for use as a voltage regulator in high voltage, low current supplies. The 6BK4 has a maximum plate voltage rating of 25,000 volts, a maximum plate current rating of 1.5 Ma and a maximum plate dissipation of 25 watts.



**SYLVANIA ELECTRIC
PRODUCTS INC.**

**RADIO TUBE DIVISION
EMPORIUM, PA.**

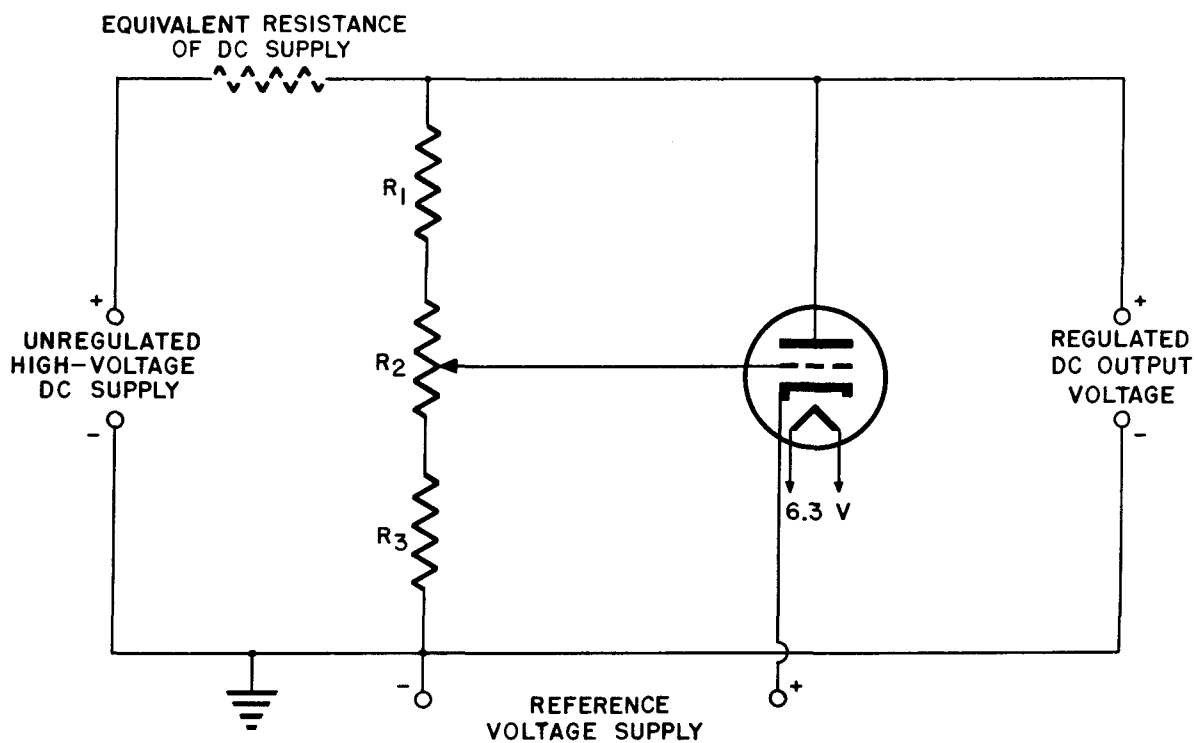
*Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA*

APRIL 1955

PAGE 1 OF 3

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.

SHUNT REGULATOR CIRCUIT

W55004

AVERAGE TRANSFER CHARACTERISTICS

