

CHARACTERISTICS AND TYPICAL OPERATION

Pentode Section

Plate Voltage	170 Volts
Screen Voltage.....	170 Volts
Grid Voltage	-2 Volts
Plate Current	10 Ma
Screen Current	2.8 Ma
Transconductance	6200 μ mhos
Amplification Factor	47
Plate Resistance	0.4 Megohm
Input Resistance (F = 50 MHz)	10,000 Ohms
Equivalent Noise Resistance	1500 Ohms

Triode Section

Plate Voltage	100 Volts
Grid Voltage	-2 Volts
Plate Current	14 Ma
Transconductance	5000 μ mhos
Amplification Factor	20

Converter Service⁽³⁾

Plate Voltage	170	170 Volts
Screen Voltage.....	170	170 Volts
Grid Resistance	0.1	0.1 Megohm
Cathode Resistor	330	820 Ohms
Oscillator Voltage	3.5	3.5 Volts
Plate Current	6.5	5.2 Ma
Screen Current	2.0	1.5 Ma
Grid Current	20	0 μ a
Conversion Conductance	2200	2100 μ mhos
Internal Resistance	0.8	0.87 Megohm

NOTES:

- (1) If the plate dissipation is less than 1.2 watts, the maximum value of the screen dissipation may be increased to 0.75 watts.
- (2) Grid voltage must not be more positive than this value.
- (3) The triode should be used in Colpitts rather than a Hartley type oscillator circuit.

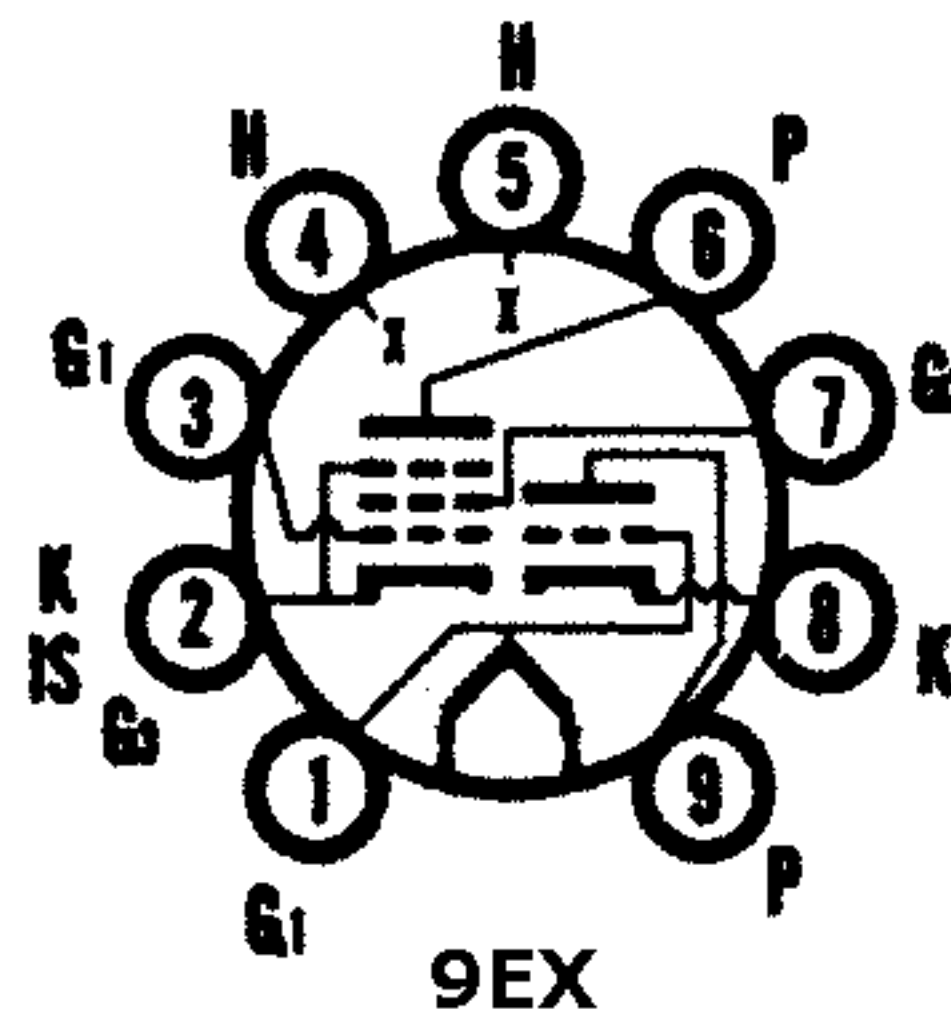
6BM8/ECL82

Color Television Type

AF AMPLIFIER or OSCILLATOR
AUDIO POWER AMPLIFIER

Triode and Power Pentode

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	9EX
Outline	6-4
Maximum Diameter	0.875 In.
Maximum Seated Height	2.813 In.
Maximum Overall Height	3.063 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage.....	6.3 Volts
Heater Current	780 Ma
Maximum Heater-Cathode Voltage	100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Triode

Grid to All Other Elements Except Plate	2.7 Pf
Plate to All Other Elements Except Grid	4.0 Pf
Plate to Grid	4.0 Pf
Grid to Heater (Max.)	0.1 Pf

Pentode

Grid No. 1 to All Other Elements	9.3 Pf
Plate to All Other Elements	8 Pf
Grid No. 1 to Plate (Max.)	0.3 Pf
Grid to. 1 to Heater (Max.)	0.3 Pf

Coupling

Triode Plate to Pentode Grid No. 1 (Max.)	0.02 Pf
Triode Grid to Pentode Plate (Max.)	0.02 Pf
Triode Grid to Pentode Grid No. 1 (Max.)	0.025 Pf
Triode Plate to Pentode Plate (Max.)	0.25 Pf

RATINGS (Design Center Rating System)

	Triode	Pentode
Plate Supply Voltage (Max.)	550	900 Volts
Plate Voltage (Max.)	300	600 Volts
Grid No. 2 Supply Voltage (Max.)	—	550 Volts
Grid No. 2 Voltage (Max.)	—	300 Volts
Cathode Current (Max.).....	15	50 Ma
Plate Dissipation (Max.)	1	7 Watts
Grid No. 2 Input (Max.)	—	1.8 Watts
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	1	1 Megohm
Cathode Bias (Max.)	2	2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Triode	Pentode
Plate Voltage	100	200 Volts
Grid No. 2 Voltage	—	200 Volts
Grid No. 1 Voltage	0	-16 Volts
Amplification Factor	70	9.5 ⁽¹⁾
Plate Resistance.....	—	20,000 Ohms
Transconductance	2500	6400 μ mhos
Plate Current	3.5	35 Ma
Grid No. 2 Current	—	7 Ma

NOTE:

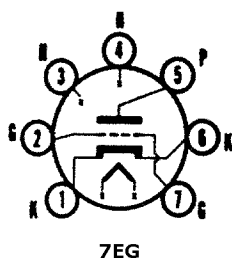
(1) Grid No. 1 to Grid No. 2.

Color Television Type
VHF AMPLIFIER

6BN4A
2BN4A, 3BN4A

Medium Mu Triode

Construction Miniature T-5½
 Base Button 7 Pin, E7-1
 Basing 7EG
 Outline 5-2
 Maximum Diameter 0.750 In.
 Maximum Seated Height 1.875 In.
 Maximum Overall Height 2.125 In.



ELECTRICAL DATA

HEATER OPERATION

	2BN4A	3BN4A	6BN4A
Heater Voltage.....	2.35	3.0	6.3 Volts
Heater Current	600	450	200 Ma
Heater Warm-up Time	11	11	— Seconds
Maximum Heater-Cathode Voltage			100 Volts

DIRECT INTERELECTRODE CAPACITANCES

	Unshielded	Shielded
Grid to Plate	1.1	1.2 Pf
Input: g to (h + k)	2.9	3.2 Pf
Output: p to (h + k)	0.7	1.4 Pf

RATINGS (Design Center Rating System)

Plate Voltage (Max.)	275 Volts
Plate Dissipation (Max.)	2.2 Watts
Positive DC Grid Voltage (Max.)	0 Volt
DC Cathode Current (Max.)	22 Ma
Grid Circuit Resistance (Max.).....	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	150 Volts
Cathode Bias Resistor	220 Ohms
Plate Current	9.0 Ma
Transconductance	7700 μ mhos
Amplification Factor	43
Plate Resistance (Approx.)	5400 Ohms
Ec for Ib = 100 μ a (Approx.).....	-6 Volts