

V.H.F. AMPLIFIER TRIODE TYPES 2BN4-A, 3BN4-A AND 6BN4-A

The 2BN4-A, 3BN4-A and 6BN4-A are 7-Pin miniature-medium-mu triodes designed for service as grounded-grid r-f amplifiers in V.H.F. television receiver tuners. They are characterized by high transconductance and high transconductance per milliampere of plate current.

The 2BN4-A and 3BN4-A have been designed for use in receivers which employ series connected heaters especially in television receivers where the picture-tube heater is in series with other heaters. When each is employed in this type of circuit with other tubes similarly designed having the same heater current rating, heater voltage surges across individual tubes are minimized inasmuch as heater warm-up characteristic is controlled.

ELECTRICAL:

Direct Interelectrode Capacitances:		Shielded [⊕]	Unshielded	
Grid to Plate.....	1.2	1.1		μμf
Input.....	3.2	2.9		μμf
Output.....	1.4	0.7		μμf
Heater Characteristics: 2BN4-A 3BN4-A 6BN4-A				
Voltage.....	2.35	3.0	6.3 ± 10%	Volts
Current.....	0.60 ± 6%	0.45 ± 6%	0.20	Ampere
Warm-up Time [•]	11	11	--	Seconds

MECHANICAL:

Bulb.....	T-5-1/2
Base.....	Miniature 7-Pin (JEDEC E7-1)
Outline.....	5-2
Basing.....	7EG
Mounting Position.....	Any
Cathode.....	Coated Unipotential

MAXIMUM RATINGS:

Design Center Values

Plate Voltage.....	275	max.	Volts
Positive Grid 1 Voltage.....	0	max.	Volts
Plate Dissipation.....	2.2	max.	Watts
Cathode Current.....	22	max.	Ma.
Grid Circuit Resistance.....	0.5	max.	Megohm
Heater-Cathode Voltage:			
Heater Negative or positive with Respect to Cathode			
Total DC and Peak.....	100	max.	Volts

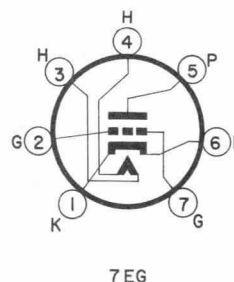
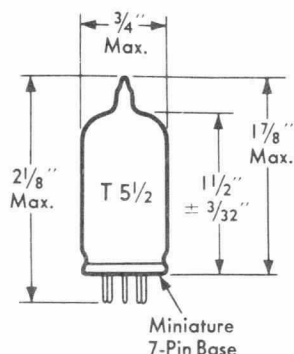
TYPICAL OPERATING CHARACTERISTICS:

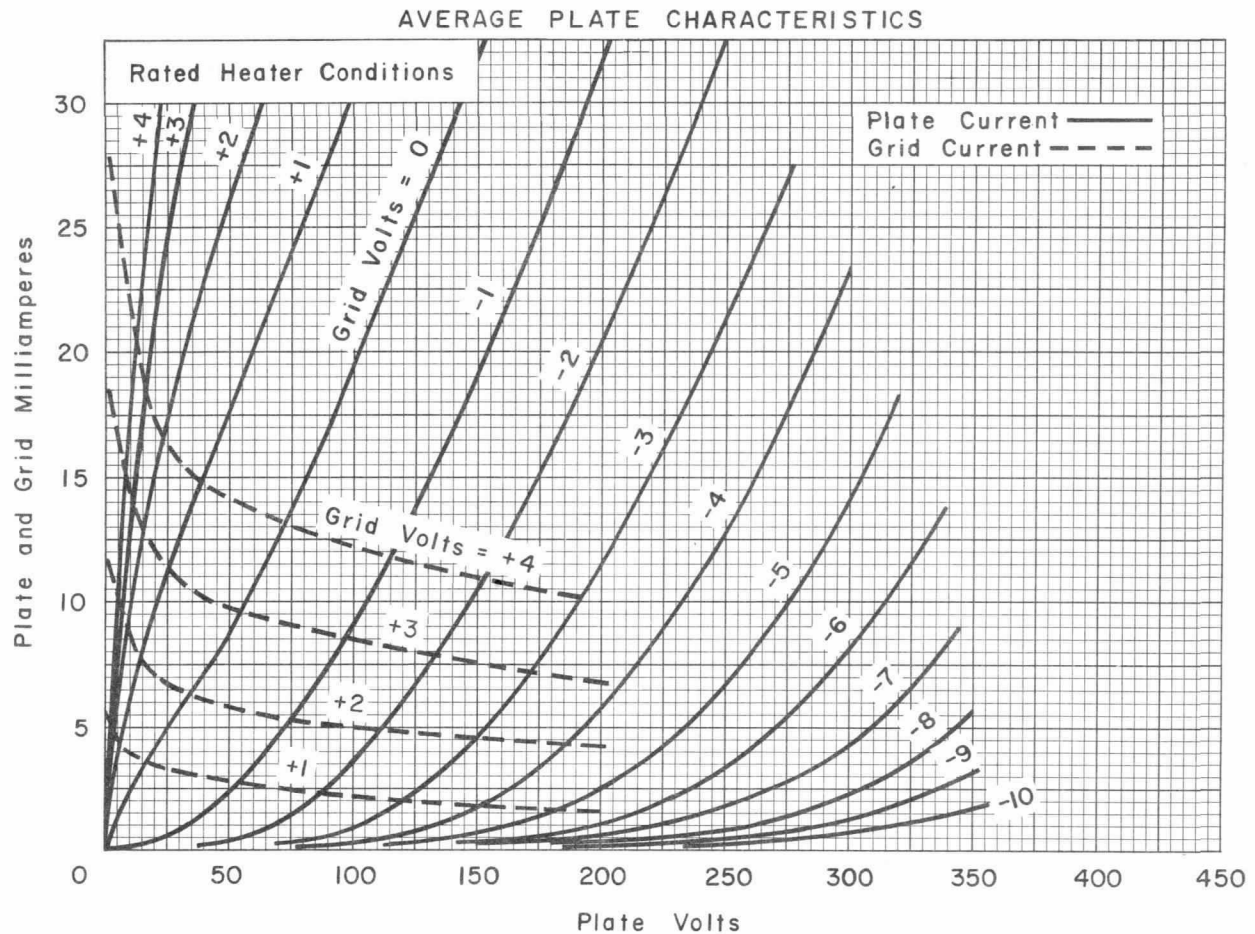
Plate Voltage.....	150	Volts
Cathode Bias Resistor.....	220	Ohms
Plate Resistance.....	5400	Ohms
Transconductance.....	7700	μmhos
Amplification Factor.....	43	
Grid Cutoff Bias★.....	-6.0	Volts
Plate Current.....	9.0	Ma.

⊕ With JEDEC Shield No. 316 connected to Pin 6.

• Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times rated heater voltage divided by rated heater current.

★ For plate current of 100 microamperes.





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