

TUNG-SOL

TRIODE-PENTODE
MINIATURE TYPE

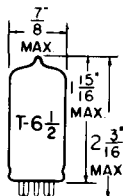
COATED UNIPOTENTIAL CATHODE

HEATER

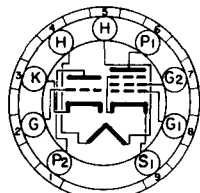
4.7 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE

THE 5AN8 IS A GENERAL PURPOSE, MULTI-UNIT TUBE USING THE 9 PIN MINIATURE CONSTRUCTION. CONTAINING A MEDIUM-MU TRIODE AND A SHARP-CUTOFF PENTODE IN ONE ENVELOPE, IT IS DESIGNED FOR USE IN 600 MA. SERIES HEATER OPERATED RECEIVERS. IT IS INTENDED FOR A WIDE VARIETY OF APPLICATIONS IN COLOR TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. WITH THE EXCEPTION OF HEATER RATINGS, ITS CHARACTERISTICS ARE IDENTICAL TO THE 6AN8.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

TRIODE UNIT		
GRID TO PLATE	1.5	$\mu\mu\text{f}$
INPUT	2.0	$\mu\mu\text{f}$
OUTPUT	0.27	$\mu\mu\text{f}$
PENTODE UNIT		
GRID #1 TO PLATE (MAX.)	0.04	$\mu\mu\text{f}$
INPUT	7.0	$\mu\mu\text{f}$
OUTPUT	2.3	$\mu\mu\text{f}$
TRIODE GRID TO PENTODE PLATE	0.005	$\mu\mu\text{f}$
PENTODE GRID #1 TO TRIODE PLATE	0.006	$\mu\mu\text{f}$
PENTODE PLATE TO TRIODE PLATE	0.045	$\mu\mu\text{f}$

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A₁ AMPLIFIER -- DESIGN CENTER VALUES

	TRIODE UNIT	PENTODE UNIT	VOLTS
HEATER VOLTAGE	4.7		
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	200	VOLTS
TOTAL DC AND PEAK			
HEATER POSITIVE WITH RESPECT TO CATHODE	100	100	VOLTS
DC	200 ^A	200 ^A	VOLTS
TOTAL DC AND PEAK	300	300	VOLTS
MAXIMUM PLATE VOLTAGE	---	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	---	SEE CURVE #1	
MAXIMUM GRID #2 VOLTAGE	---		
MAXIMUM GRID #1 VOLTAGE	0	0	VOLTS
POSITIVE BIAS VALUE	2.6 ←	2.0	WATTS
MAXIMUM PLATE DISSIPATION	---	0.5	WATT
MAXIMUM GRID #2 INPUT			
MAXIMUM GRID #1 CIRCUIT RESISTANCE: ^B			
FOR CATHODE-BIAS OPERATION	1.0	1.0	MEGOHM
FOR FIXED-BIAS OPERATION	0.5	0.25	MEGOHM
HEATER WARM-UP TIME (APPROX.) [*]	11.0		SEC.

^A THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.^B IF EITHER UNIT IS OPERATING AT MAXIMUM RATED CONDITIONS, GRID #1 CIRCUIT RESISTANCES FOR BOTH UNITS SHOULD NOT EXCEED THE STATED VALUES.

^{*} HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

→ INDICATES A CHANGE.

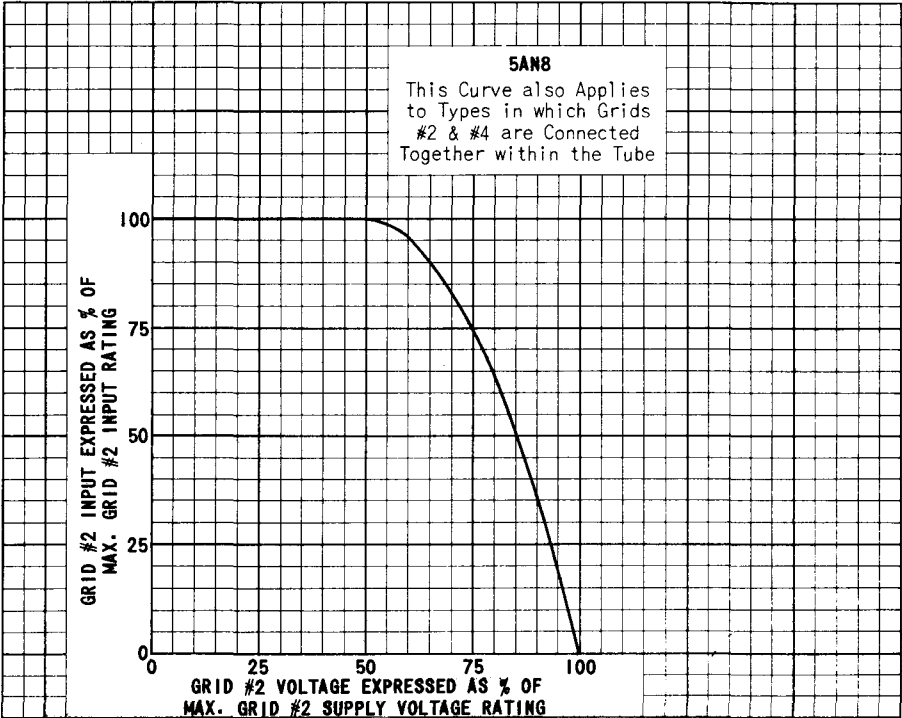
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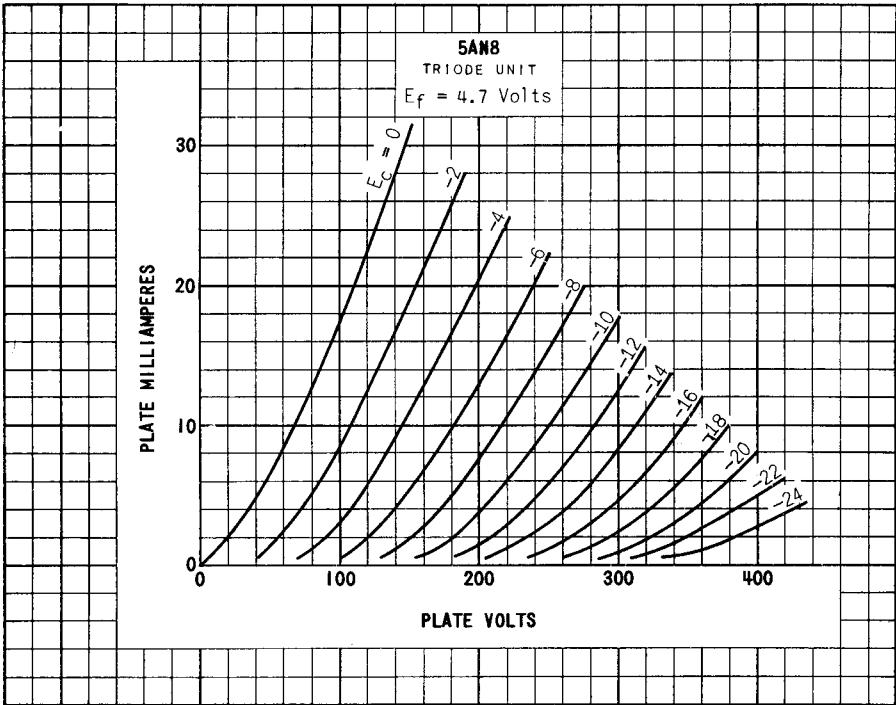
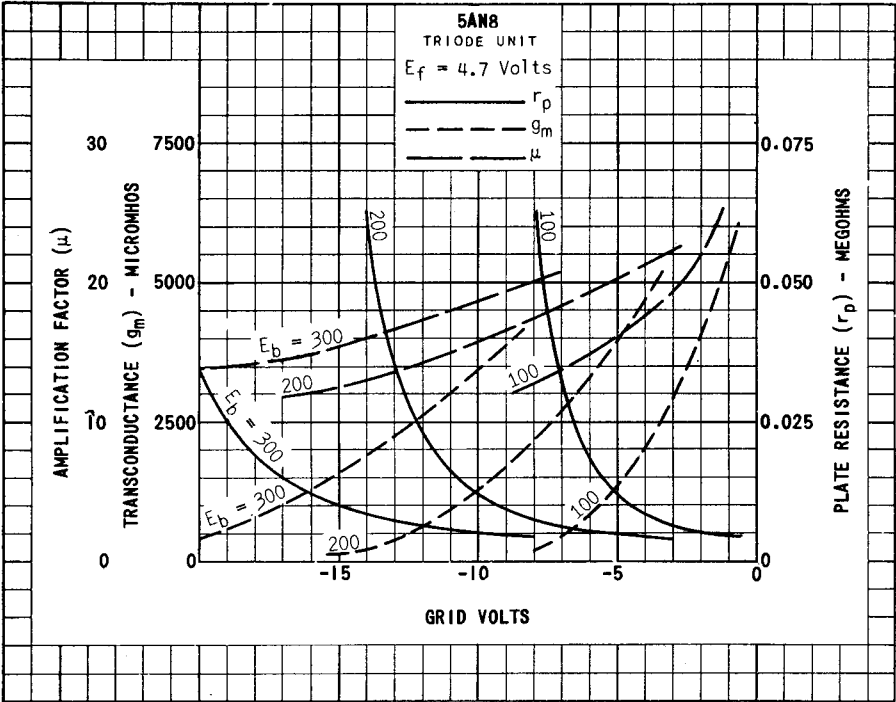
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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	TRIODE UNIT	PENTODE UNIT	
HEATER VOLTAGE		4.7	VOLTS
HEATER CURRENT		0.6	AMP.
PLATE SUPPLY VOLTAGE	200	200	VOLTS
GRID #2 SUPPLY VOLTAGE	---	150	VOLTS
GRID #1 VOLTAGE	-6	---	VOLTS
CATHODE BIAS RESISTOR	---	180	OHMS
AMPLIFICATION FACTOR	19	---	
PLATE RESISTANCE (APPROX.)	5 750	300 000	OHMS
TRANSCONDUCTANCE	3 300	6 200	μMHOS
GRID #1 BIAS (APPROX.) FOR $I_b = 10 \mu A$.	-19	-8	VOLTS
PLATE CURRENT	13	9.5	MA.
GRID #2 CURRENT	---	2.8	MA.





5AN8

