

TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

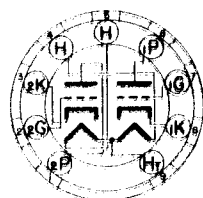
HEATER

SERIES
12.6 VOLT DC
300 MA.

PARALLEL
6.3 VOLT AC
600 MA.

AC OR DC

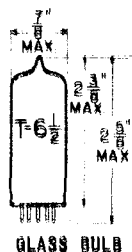
FOR 12.6 VOLT OPERATION APPLY HEATER VOLTAGE BETWEEN PINS #4 AND #5. FOR 6.3 VOLT OPERATION APPLY HEATER VOLTAGE BETWEEN PINS #2 AND PINS #4 AND #5 CONNECTED TOGETHER.



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE

9A



GLASS BULB

ANY MOUNTING POSITION

THE 12BH7 COMBINES TWO INDEPENDENT SEMI-HIGH PERVEANCE, MEDIUM-MU TRIODES IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS SUITABLE FOR USE AS A COMBINED VERTICAL DEFLECTION SWEEP GENERATOR AND DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS USING PICTURE TUBES WITH WIDE DEFLECTION ANGLES.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD ^A	WITHOUT SHIELD
TRIODE UNIT #1		
GRID TO PLATE: (G TO P)	2.4	2.4 $\mu\mu\text{f}$
INPUT: G TO (H+K)	3	3 $\mu\mu\text{f}$
OUTPUT: P TO (H+K)	2	0.8 $\mu\mu\text{f}$
TRIODE UNIT #2		
GRID TO PLATE: (G TO P)	2.4	2.4 $\mu\mu\text{f}$
INPUT: G TO (H+K)	3	3 $\mu\mu\text{f}$
OUTPUT: P TO (H+K)	2.6	0.8 $\mu\mu\text{f}$
COUPLING: (1P TO 2P)	0.6	0.9 $\mu\mu\text{f}$

^A WITH SHIELD #315 CONNECTED TO CATHODE OF UNIT UNDER TEST.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD NR-210

	CLASS A1 AMPLIFIER	VERTICAL DEFLECTION AMPLIFIER	
HEATER VOLTAGE	12.6	6.3	12.6
MAXIMUM PEAK HEATER-CATHODE VOLTAGE	180	180	VOLTS
MAXIMUM DC PLATE VOLTAGE	300	500	VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE	—	500 ^B	VOLTS
MAXIMUM NEGATIVE DC GRID VOLTAGE	-50	-50	VOLTS
MAXIMUM PEAK NEGATIVE PULSE GRID VOLTAGE	—	-220 ^B	VOLTS
MAXIMUM PLATE DISSIPATION (EACH UNIT)	3.5	5 ^B	VOLTS
MAXIMUM DC CATHODE CURRENT (EACH UNIT)	20	20	MA.
MAXIMUM GRID CIRCUIT RESISTANCE (SELF BIAS)	2.5	2.5	MEG OHMS
MAXIMUM GRID CIRCUIT RESISTANCE (FIXED BIAS)	1	1	MEG OHM

^B THESE RATINGS ARE ON THE ABSOLUTE MAXIMUM SYSTEM! ABSOLUTE MAXIMUM RATINGS ARE THE LIMITING VALUES ABOVE WHICH THE SERVICEABILITY OF THE TUBE MAY BE IMPAIRED FROM THE VIEWPOINT OF LIFE AND SATISFACTORY PERFORMANCE. THEREFORE, IN ORDER NOT TO EXCEED THESE ABSOLUTE RATINGS, THE EQUIPMENT DESIGNER HAS THE RESPONSIBILITY OF DETERMINING AN AVERAGE DESIGN VALUE FOR EACH RATING BELOW THE ABSOLUTE VALUE OF THAT RATING BY AN AMOUNT SUCH THAT THE ABSOLUTE VALUES WILL NEVER BE EXCEEDED UNDER ANY USUAL CONDITION OF LINE VOLTAGE VARIATION, MANUFACTURING VARIATIONS (INCLUDING COMPONENTS) IN THE EQUIPMENT ITSELF, OR ADJUSTMENTS OF CONTROLS.

PLATE
24H7
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CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

HEATER VOLTAGE	12.6	6.3	12.6	6.3	VOLTS
HEATER CURRENT	300	600	300	600	MA.
PLATE VOLTAGE	85		250		VOLTS
GRID VOLTAGE	0		10.5		VOLTS
PLATE CURRENT (EACH UNIT)	20		11.5		VOLTS
TRANSCONDUCTANCE (EACH UNIT)	6200		3100		VOLTS
AMPLIFICATION FACTOR	21		17		
GRID VOLTAGE (APPROX.) FOR $I_b = \mu A$. AT $E_b = 500$			-45		VOLTS

VERTICAL DEFLECTION CIRCUIT

HEATER VOLTAGE	12.6	6.3	VOLTS
HEATER CURRENT	300	600	MA.
DC PLATE VOLTAGE		350	VOLTS
CATHODE BIAS RESISTOR (VARIABLE)		560	OHMS
GRID INPUT VOLTAGE:			
PEAK TO PEAK SAWTOOTH COMPONENT (APPROX.)		25	VOLTS
NEGATIVE PEAKING COMPONENT (APPROX.)		32	VOLTS
DC PLATE CURRENT		16	MA.
PLATE OUTPUT VOLTAGE:			
PEAK POSITIVE COMPONENT		670	VOLTS
PEAK TO PEAK SAWTOOTH COMPONENT		250	VOLTS
SWEEP HEIGHT (16RP4 OR 16TP4 TUBE WITH 14KV ON ANODE) ^C		10½	INCHES

^CSEE CIRCUIT ON FOLLOWING PAGE.

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