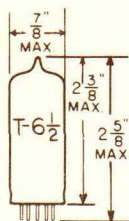


TUNG-SOL

TRIODE PENTODE

MINIATURE TYPE



GLASS BULB

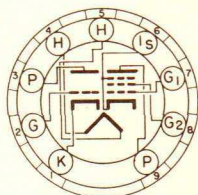
COATED UNIPOTENTIAL CATHODE

HEATER

8.4 VOLTS 0.45 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE

90X

THE 8AU8 AND 8AU8A ARE GENERAL PURPOSE MINIATURE TUBES CONTAINING A SHARP-CUTOFF PENTODE AND A MEDIUM-MU TRIODE IN ONE ENVELOPE. EACH SECTION HAS ITS OWN CATHODE AND IS ELECTRICALLY INDEPENDENT. THEY ARE DESIGNED FOR USE IN 450 MA. SERIES HEATER OPERATED MONOCHROME AND COLOR TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATERS ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED THEY ARE USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. THE PENTODE SECTIONS ARE PARTICULARLY SUITED FOR USE AS VIDEO AMPLIFIERS, VIDEO IF AMPLIFIERS, AND SOUND IF AMPLIFIERS. THE TRIODE SECTIONS ARE INTENDED FOR USE AS SYNC AMPLIFIERS, SEPARATORS OR CLIPPERS, OR AS SWEEP OSCILLATORS. THE 8AU8A DIFFERS FROM THE 8AU8 PRIMARILY BY INCORPORATING A CONTROLLED PLATE-KNEE CHARACTERISTIC.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

	PENTODE SECTION	TRIODE SECTION	
GRID TO PLATE	0.06 ^A	2.2	uu f
INPUT	7.5	2.6	uu f
OUTPUT	3.4 ^B	0.34	uu f
PENTODE GRID #1 TO TRIODE PLATE	0.006		uu f
TRIODE GRID TO PENTODE PLATE	0.022		uu f
PENTODE PLATE TO TRIODE PLATE	0.12		uu f

^A VALUE FOR 8AU8: 0.044^B VALUE FOR 8AU8: 2.4

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

	PENTODE SECTION	TRIODE SECTION	
HEATER VOLTAGE	8.4		VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK	200		VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC	100		VOLTS
TOTAL DC AND PEAK	200		VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	300	---	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART		
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	0	VOLTS
MAXIMUM PLATE DISSIPATION	3.0	2.5	WATTS
MAXIMUM GRID #2 DISSIPATION	1.0	---	WATTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:			
FIXED BIAS	0.25	0.5	MEGOHM
CATHODE BIAS	1.0	1.0	MEGOHM
HEATER WARM-UP TIME (APPROX.) ^A	11.0		SECONDS

^A 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.

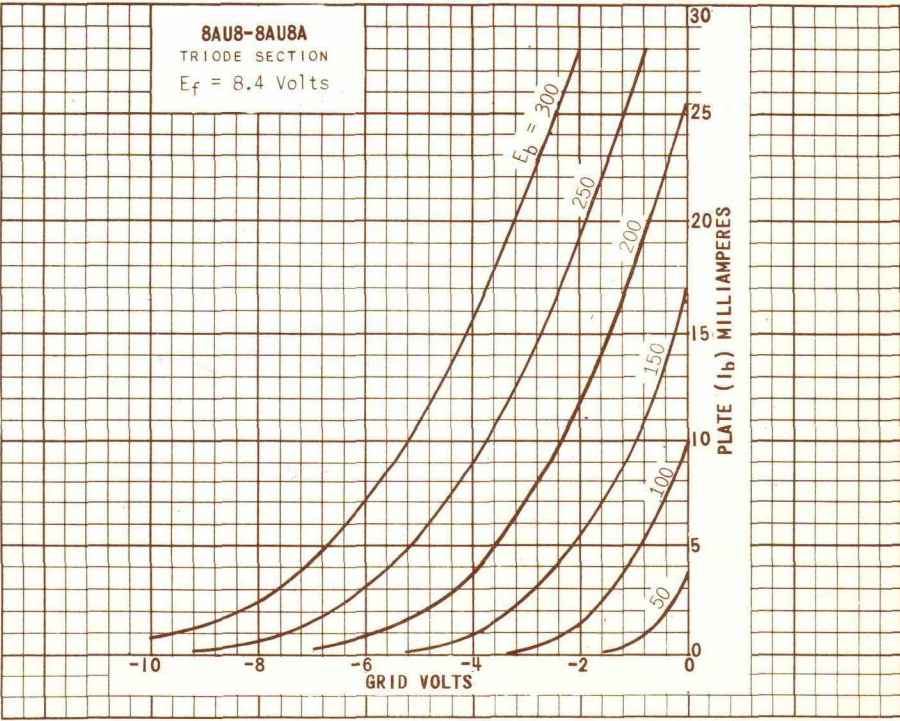
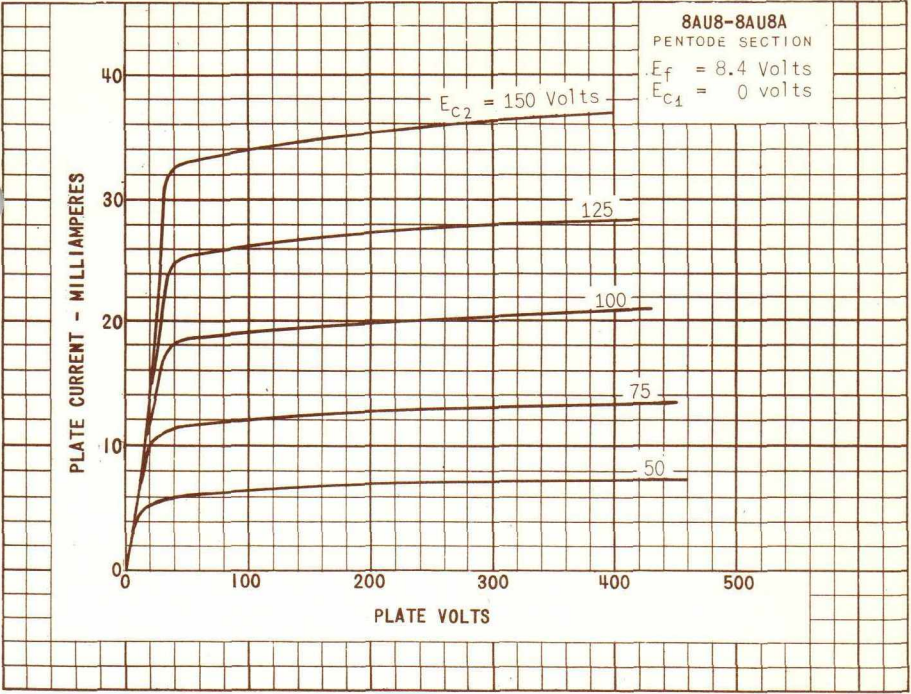
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

	PENTODE SECTION	TRIODE SECTION	
HEATER VOLTAGE	8.4		VOLTS
HEATER CURRENT	0.45		AMP.
PLATE VOLTAGE	200	150	VOLTS
GRID #2 VOLTAGE	125	---	VOLTS
CATHODE BIAS RESISTOR	82	150	OHMS
AMPLIFICATION FACTOR	---	40	
PLATE RESISTANCE (APPROX.)	150 000	8 200	OHMS
TRANSCONDUCTANCE	7 000	4 900	μMHOS
PLATE CURRENT	15	9.0	MA.
GRID #2 CURRENT	3.4	---	MA.
GRID #1 VOLTAGE (APPROX.) FOR I _b = 100 μAMP.	-8	-6.5	VOLTS

NOTE:

THE TRIODE SECTION OF THE 8AU8A MAY BE DIODE-CONNECTED AND EMPLOYED AS A HIGH-PERVEANCE DIODE IN VIDEO-DETECTOR APPLICATIONS. THE DIODE OPERATION CAN BE OBTAINED EITHER WITH THE TRIODE GRID CONNECTED TO THE TRIODE PLATE AND THE COMBINATION OPERATED AS THE PLATE OF THE DIODE, OR WITH THE TRIODE PLATE GROUNDING AND THE TRIODE GRID OPERATED AS THE PLATE OF THE DIODE.



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