

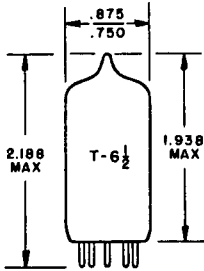
**TUNG-SOL**

TRIODE – PENTODE

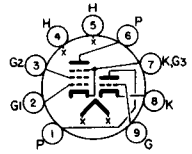
MINIATURE – TYPE

BASING DIAGRAM  
JEDEC 9AE

OUTLINE DRAWING  
JEDEC 6-2



FOR  
VIDEO AMPLIFIER  
AND  
SYNC SEPARATOR USE  
IN TV APPLICATIONS



BOTTOM VIEW

COATED UNIPOTENTIAL CATHODES  
ANY MOUNTING POSITION

BUTTON BASE  
9 PIN JEDEC E9-1

THE 6AX8 IS A TRIODE AND PENTODE IN THE 9-PIN MINIATURE CONSTRUCTION. IT IS SPECIFICALLY DESIGNED FOR VIDEO AMPLIFIER AND SYNC SEPARATOR SERVICE IN T.V. RECEIVERS.

**DIRECT INTERELECTRODE CAPACITANCES**

WITH EXTERNAL SHIELD #315 CONNECTED TO CATHODE OF  
UNIT UNDER TEST

<b>TRIODE UNIT:</b>		
GRID TO PLATE	1.8	pf
GRID TO CATHODE AND HEATER	2.5	pf
PLATE TO CATHODE AND HEATER	1	pf
<b>PENTODE UNIT:</b>		
GRID 1 TO PLATE	MAX.	0.006 pf
GRID 1 TO CATHODE & GRID 3 & INTERNAL SHIELD, GRID 2, AND HEATER	5	pf
PLATE TO CATHODE & GRID 3 & INTERNAL SHIELD, GRID 2, AND HEATER	3.5	pt
HEATER TO CATHODE – EACH UNIT	3.5 <sup>x</sup>	pf

X - EXTERNAL SHIELD #315 CONNECTED TO GROUND

**HEATER CHARACTERISTICS AND RATINGS**

DESIGN CENTER VALUES – SEE EIA STANDARD R5-239

AVERAGE CHARACTERISTICS	6.3 VOLTS	450	mA
<b>PEAK HEATER – CATHODE VOLTAGE: EACH UNIT</b>			
HEATER NEGATIVE WITH RESPECT TO CATHODE		90	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		90	VOLTS

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## MAXIMUM RATINGS

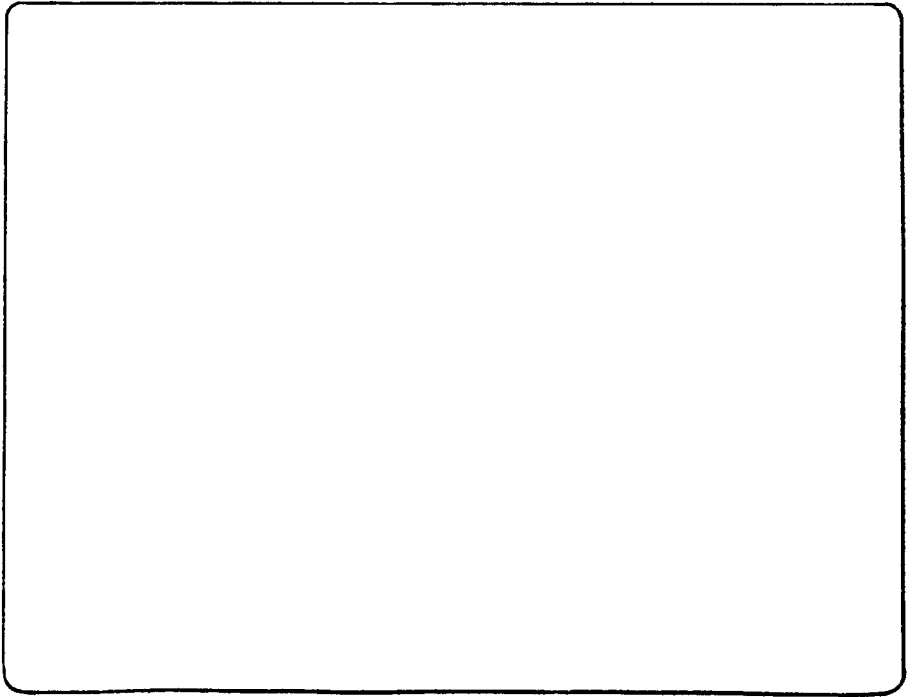
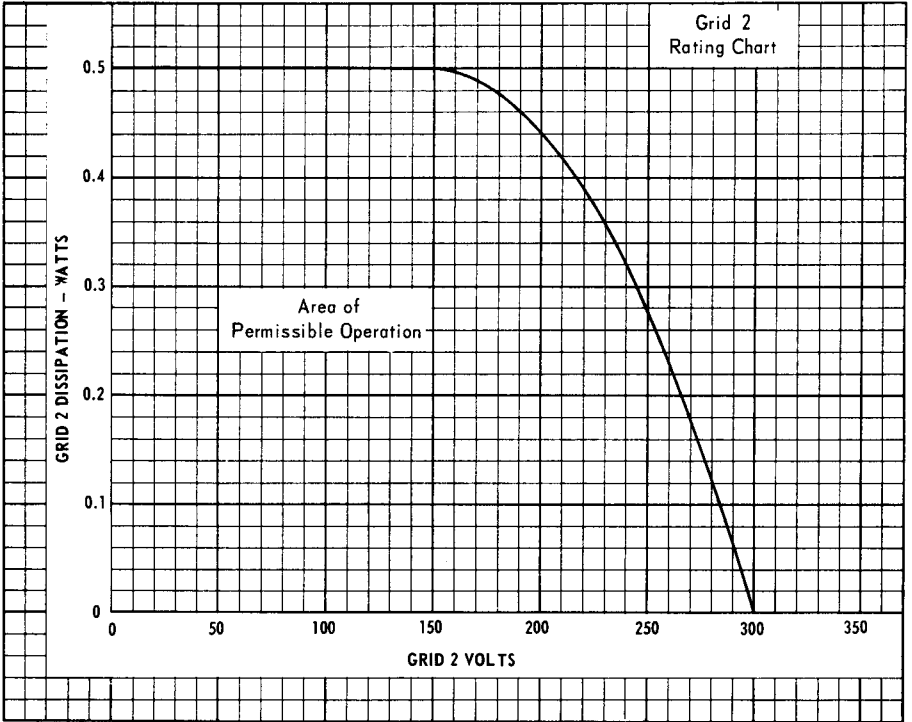
DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

	TRIODE UNIT	PENTODE UNIT	
PLATE VOLTAGE	300	300	VOLTS
GRID 2 SUPPLY VOLTAGE	-	300	VOLTS
GRID 2 VOLTAGE	-	SEE RATING CHART	
GRID 1 VOLTAGE - POSITIVE - BIAS VALUE	0	0	VOLTS
GRID 2 DISSIPATION:			
FOR GRID 2 VOLTAGES UP TO 150 VOLTS	-	0.5	WATT
FOR GRID 2 VOLTAGES BETWEEN 150 AND 300 VOLTS	-	SEE RATING CHART	
PLATE DISSIPATION	2.7	2.8	WATTS
GRID 1 CIRCUIT RESISTANCE:			
FOR FIXED - BIAS OPERATION	0.1	0.1	MEGOHM
FOR CATHODE - BIAS OPERATION	0.5	0.5	MEGOHM

## TYPICAL OPERATING CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

	TRIODE UNIT	PENTODE UNIT	
PLATE SUPPLY VOLTAGE	150	250	VOLTS
GRID 2 SUPPLY VOLTAGE	-	110	VOLTS
CATHODE RESISTOR	56	120	OHMS
PLATE CURRENT	18	10	mA
GRID 2 CURRENT	-	3.5	mA
TRANSCONDUCTANCE	8,500	4,800	μMHOS
AMPLIFICATION FACTOR	40	-	
PLATE RESISTANCE - APPROX.	0.005	0.4	MEGOHM
GRID 1 VOLTAGE (APPROX.) FOR $i_b = 10\mu A$	-12	-12	VOLTS



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