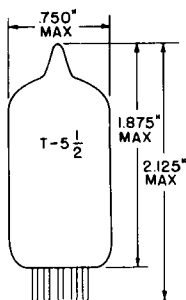


## TUNG-SOL



GLASS BULB  
MINIATURE BUTTON  
7 PIN BASE E7-1  
OUTLINE DRAWING  
JEDEC 5-2

PENTODE  
MINIATURE TYPE

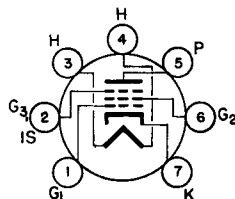
COATED UNIPOTENTIAL CATHODE

HEATER

12.6±1.3 VOLTS 150 MA.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW  
BASING DIAGRAM  
JEDEC 78K

THE 12AU6 IS A PENTODE AMPLIFIER HAVING A SHARP CUT-OFF CONTROL CHARACTERISTIC USING THE MINIATURE CONSTRUCTION. WITH HIGH TRANSCONDUCTANCE, LOW GRID-PLATE CAPACITANCE, IT IS INTENDED FOR SERVICE AS EITHER AN RF OR AF AMPLIFIER.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD <sup>A</sup>	WITHOUT SHIELD	
<b>PENTODE CONNECTION:</b>			
GRID TO PLATE: ( $G_4$ TO P) MAX.	.0035	.0035	pf
INPUT: $G_1$ TO (H+K+ $G_2$ + $G_3$ +1S)	5.5	5.5	pf
OUTPUT: P TO (H+K+ $G_2$ + $G_3$ +1S)	5	5	pf
<b>TRIODE CONNECTION:</b>			
GRID TO PLATE: $G_1$ TO (P+ $G_2$ + $G_3$ +1S)	2.6	2.6	pf
INPUT: $G_1$ TO (H+K)	3.2	3.2	pf
OUTPUT: (P+ $G_2$ + $G_3$ +1S) TO (H+K)	9.5	1.7	pf

<sup>A</sup> SHIELD #316 CONNECTED TO PIN #7.

→ MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

TRIODE CONNECTION<sup>C</sup> PENTODE CONNECTION

MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200*	200*	VOLTS
MAXIMUM PLATE VOLTAGE	275	330	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	---	330	VOLTS
MAXIMUM GRID #2 VOLTAGE	---	SEE J5-C4-2	
MAXIMUM GRID #3 VOLTAGE PIN #2 CONNECTED TO:			
PLATE	3.5	3.5	WATTS
CATHODE	---	---	WATTS
MAXIMUM GRID #2 INPUT: *			
FOR GRID #2 VOLTAGES UP TO 165 VOLTS	---	0.75	WATT
FOR GRID #2 VOLTAGES BETWEEN 165 VOLTS AND 330 VOLTS *	---	SEE J5-C4-2	
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	0	VOLTS

→ INDICATES  $\Delta$  CHANGE.

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER - PENTODE CONNECTION

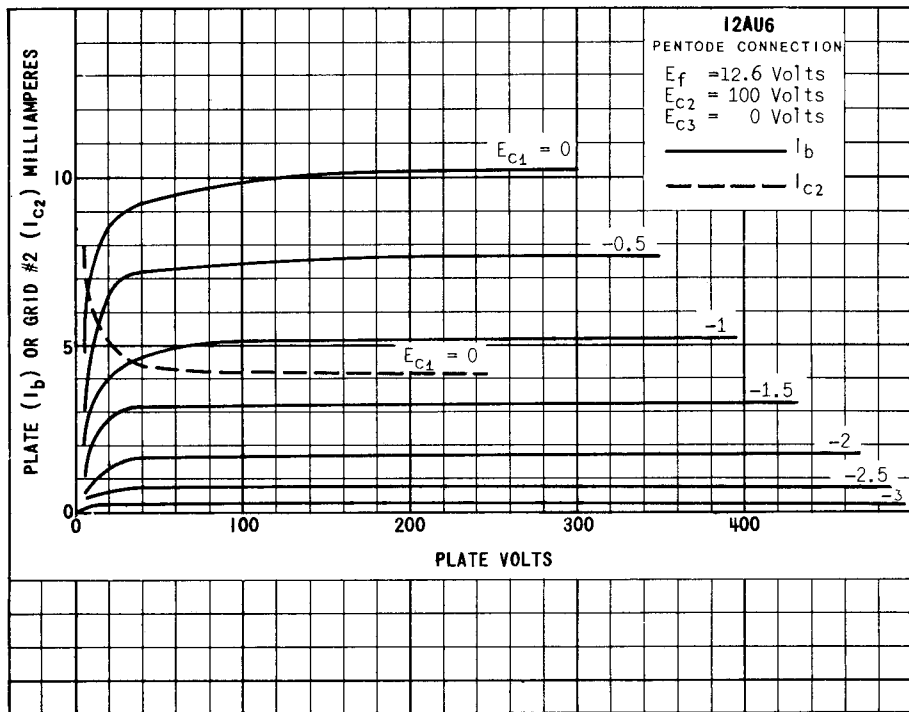
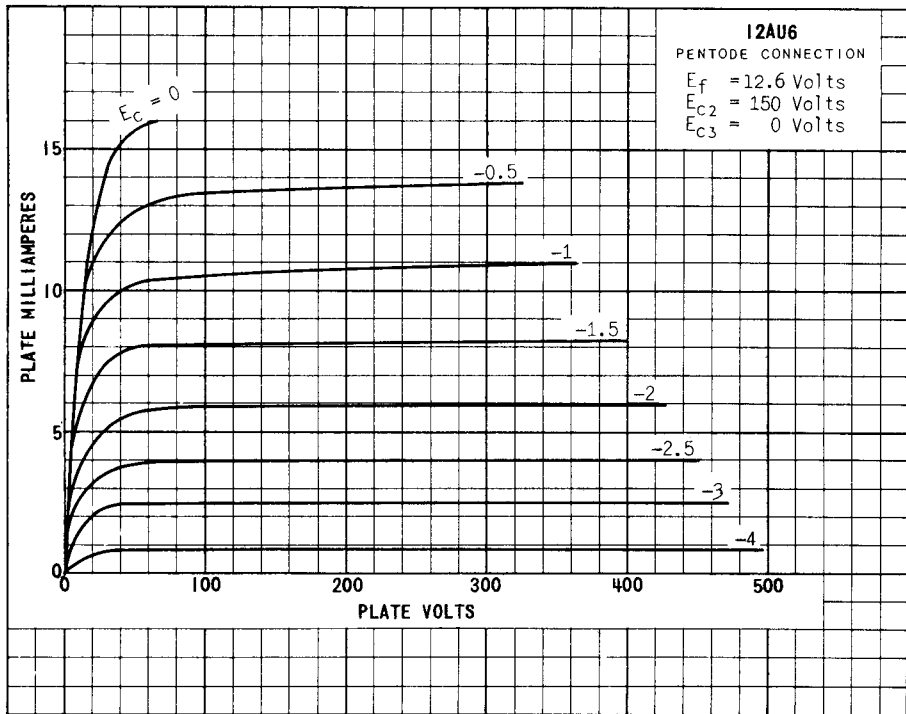
PLATE VOLTAGE	100	250	250	VOLTS
GRID #2 VOLTAGE	100	125	150	VOLTS
CATHODE BIAS RESISTOR	150	100	68	OHMS
GRID #3 VOLTAGE				
TRANSCONDUCTANCE	PIN #2	CONNECTED TO	PIN #7 AT SOCKET	
	3 900	4 500	5 200	μMHOS
PLATE CURRENT	5	7.6	10.6	MA.
GRID #2 CURRENT	2.1	3	4.3	MA.
PLATE RESISTANCE (APPROX.)	0.5	1.5	1	MEGOHMS
GRID #1 VOLTAGE (APPROX.) FOR I <sub>b</sub> = 10 μA.	-4.2	-5.5	-6.5	VOLTS

CLASS A<sub>1</sub> AMPLIFIER - TRIODE CONNECTION<sup>C</sup>

PLATE VOLTAGE	250	VOLTS
GRID #2 VOLTAGE	PLATE	
CATHODE RESISTOR	330	OHMS
GRID #3 VOLTAGE	PLATE	
TRANSCONDUCTANCE	4 800	μMHOS
PLATE CURRENT	12.2	MA.
AMPLIFICATION FACTOR	36	

<sup>C</sup> TRIODE CONNECTION: GRID #2 AND GRID #3 CONNECTED TO PLATE.

• THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.



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# 12AU6 (6AU6)

