

TUNG-SOL

PENTODE

MINIATURE TYPE

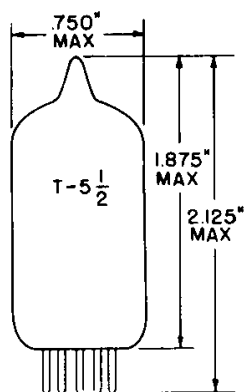
COATED UNIPOTENTIAL CATHODE

HEATER

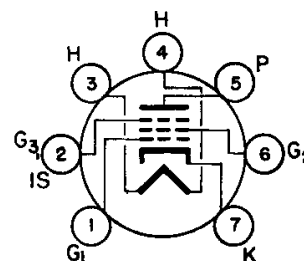
12.6±1.3 VOLTS 150 MA.

AC OR DC

ANY MOUNTING POSITION



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



BOTTOM VIEW
BASING DIAGRAM
JEDEC 7BK

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 ^A	WITHOUT SHIELD	
PENTODE CONNECTION:			
GRID TO PLATE: (G ₁ TO P) MAX.	.0035	.0035	pf
INPUT: G ₁ TO (H+K+G ₂ +G ₃ &IS)	5.5	5.5	pf
OUTPUT: P TO (H+K+G ₂ +G ₃ &IS)	5	5	pf
TRIODE CONNECTION:			
GRID TO PLATE: G ₁ TO (P+G ₂ +G ₃ &IS)	2.6	2.6	pf
INPUT: G ₁ TO (H+K)	3.2	3.2	pf
OUTPUT: (P+G ₂ +G ₃ &IS) TO (H+K)	9.5	1.7	pf

^A SHIELD #326 CONNECTED TO PIN #7.

→ MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

TRIODE CONNECTION^C 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	CATHODE	
MAXIMUM PLATE DISSIPATION	3.5	3.5	WATTS
MAXIMUM GRID #2 DISSIPATION	---	---	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 A CHANGE.

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER - PENTODE CONNECTION

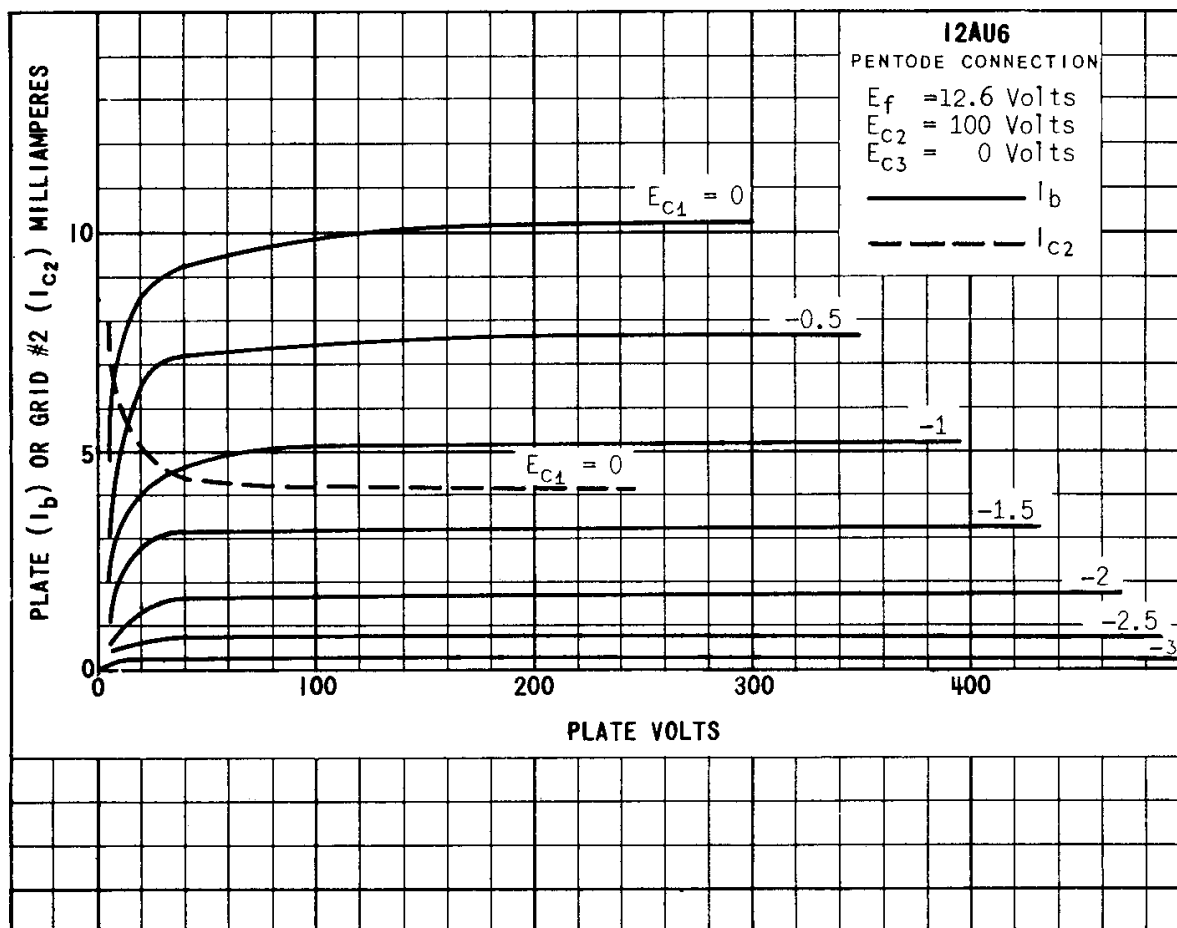
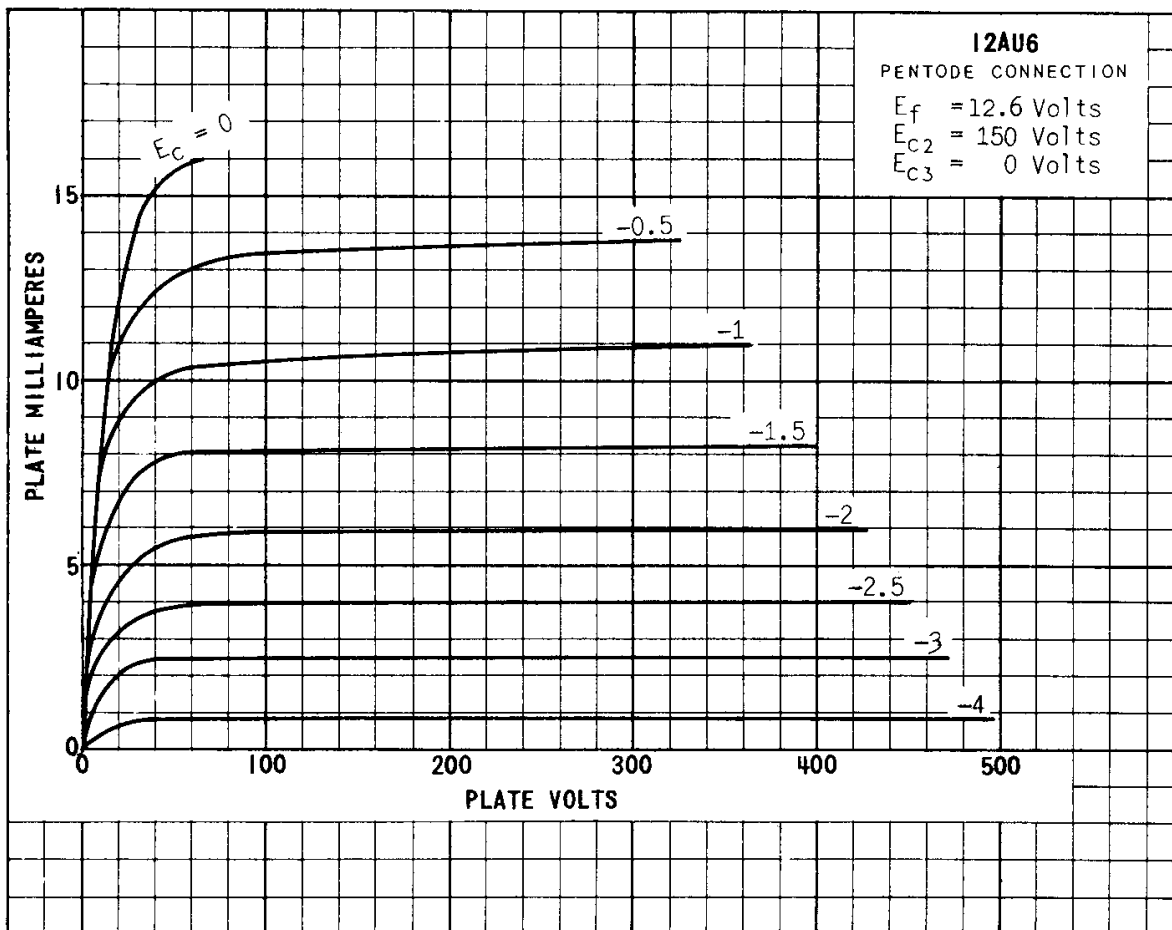
PLATE VOLTAGE	100	250	250	VOLTS
GRID #2 VOLTAGE	100	125	150	VOLTS
CATHODE BIAS RESISTOR	150	100	68	OHMS
GRID #3 VOLTAGE	PIN #2 CONNECTED TO PIN #7 AT SOCKET			
TRANSCONDUCTANCE	3 900	4 500	5 200	μMHOS
PLATE CURRENT	5	7.6	10.6	MA.
GRID #2 CURRENT	2.1	3	4.3	MA.
PLATE RESISTANCE (APPROX.)	0.5	1.5	1	MEGOHMS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

CLASS A₁ AMPLIFIER - TRIODE CONNECTION^C

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	

^C TRIODE CONNECTION: GRID #2 AND GRID #3 CONNECTED TO PLATE.

• THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.



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12AU6 (6AU6)

