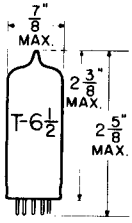
TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE

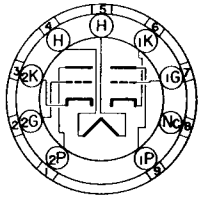


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.75 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE

THE 6BN7 COMBINES TWO INDEPENDENT TRIODES IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS SPECIFICALLY DESIGNED FOR SERVICE AS A COMBINED VERTICAL OSCILLATOR AND AMPLIFIER IN TELEVISION RECEIVERS. THE TWO TRIODES HAVE DIFFERENT ELECTRICAL RATINGS AND CAPABILITIES, ALLOWING ONE SECTION TO BE USED AS THE GENERATOR AND THE OTHER TO BE USED AS THE AMPLIFIER AND OUTPUT SECTION. THE DESIGN IS SUCH AS TO PERMIT SATISFACTORY OPERATION WITH LOW POWER SUPPLY VOLTAGES.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

	SECTION #2	SECTION #1	
GRID TO PLATE: (G TO P)	0.7	3	μμf
GRID TO CATHODE: (G TO K)	1.4	5.5	μμf
PLATE TO CATHODE: (P TO K)	0.3	1.6	μμf
HEATER TO CATHODE: (H TO K)	2.8	4.2	μμf
PLATE TO PLATE: (P TO P) APPROX.	1.2		μμf
GRID TO GRID: (G TO G) APPROX.	0.03		μμf

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE (EACH SECTION)	200	VOLTS
MAXIMUM PLATE VOLTAGE (EACH SECTION)	400	VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (SECTION #1 ONLY)[A]	1500	VOLTS
MAXIMUM NEGATIVE DC GRID VOLTAGE (EACH SECTION)	-50	VOLTS
MAXIMUM PEAK NEGATIVE PULSE GRID VOLTAGE (EACH SECTION)	-200	VOLTS
MAXIMUM PLATE DISSIPATION (SECTION #1)	7.5	WATTS
MAXIMUM PLATE DISSIPATION (SECTION #2)	1.5	WATTS
MAXIMUM GRID CIRCUIT RESISTANCE (EACH SECTION)	2.2	MEGOHMS

[A] REFERS ONLY TO PULSE DURATION TYPICAL OF 525-LINE, 30-FRAME SYSTEM WHEREIN THE PULSE IS LIMITED TO 15% OF ONE SCANNING CYCLE OR APPROXIMATELY 2.5 MILLISECONDS.

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CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

	SECTION #2		SECTION #1	
HEATER VOLTAGE		6.3		VOLTS
HEATER CURRENT		0.75		AMP.
PLATE VOLTAGE	120		250	VOLTS
GRID VOLTAGE	-1		-15	VOLTS
PLATE CURRENT	5		24	MA.
TRANSCONDUCTANCE	2 000		5 500	µMHOS
AMPLIFICATION FACTOR	28		12	
PLATE RESISTANCE	14 000		2 200	OHMS
GRID VOLTAGE (APPROX.) FOR I_b = 100 µA.	-7		-35	VOLTS

VERTICAL DEFLECTION CIRCUIT

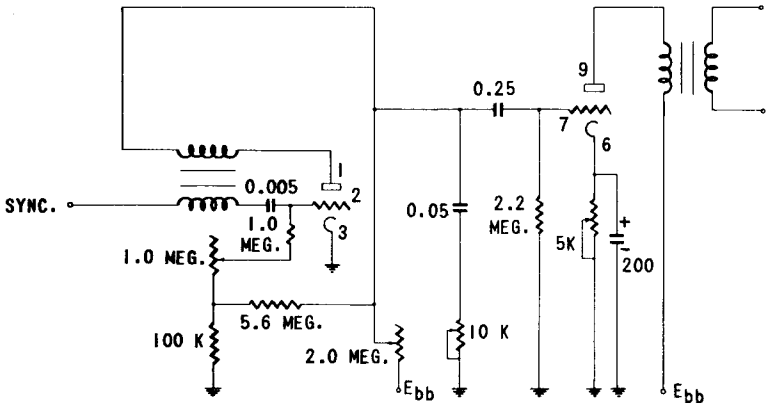
SECTION #2 - (BASE PINS 1, 2 AND 3) AS OSCILLATOR-DISCHARGE TUBE
SECTION #1 - (BASE PINS 6, 7 AND 9) AS VERTICAL AMPLIFIER

	CONDITION I[B]	CONDITION II[C]	
HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.75	0.75	AMP.
SECTION #2			
DC PLATE SUPPLY VOLTAGE	360	250	VOLTS
DC PLATE CURRENT (APPROX.)	200	125	µA.
SECTION #1			
DC PLATE VOLTAGE	360	250	VOLTS
CATHODE RESISTOR (APPROX.)	330	330	OHMS
DC PLATE CURRENT	21	20	MA.
PEAK TO PEAK SAWTOOTH GRID VOLTAGE (APPROX.)	75	45	VOLTS
NEGATIVE PEAK GRID VOLTAGE (APPROX.)	15	15	VOLTS

[B] FOR 15" VERTICAL DEFLECTION OF WIDE-ANGLE (70°) PICTURE TUBE OPERATION WITH 14 KV. SECOND ANODE VOLTAGE. TRANSFORMER 11.4 : 1 TURNS RATIO TO YOKE OF 50 OHMS IMPEDANCE AT 1000 CYCLES.

[C] FOR 11" VERTICAL DEFLECTION OF WIDE-ANGLE (70°) PICTURE TUBE OPERATION WITH 14 KV. SECOND ANODE VOLTAGE. TRANSFORMER 10 : 1 TURNS RATIO TO YOKE OF 50 OHMS IMPEDANCE AT 1000 CYCLES.

TYPICAL CIRCUIT FOR CONDITIONS I AND II



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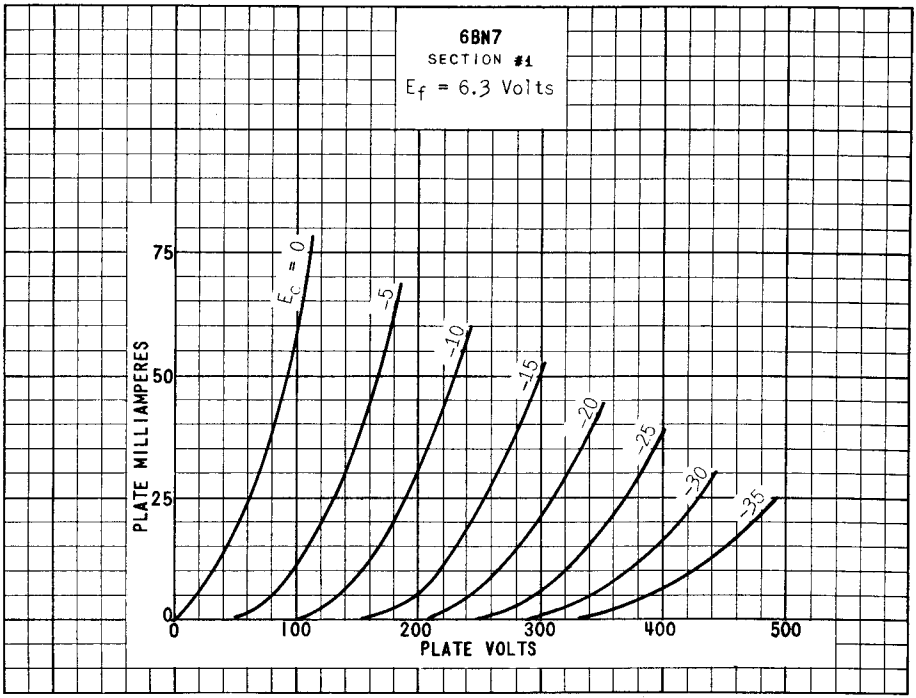

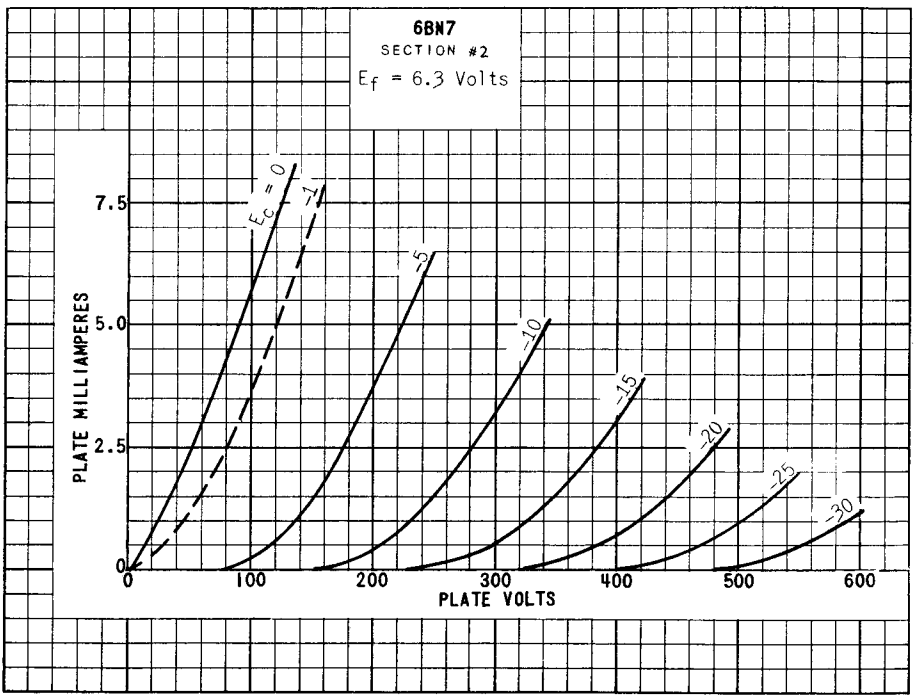

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