TUNG-SOL

DOUBLE-DIODE TRIODE

MINIATURE TYPE

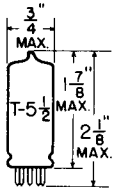
UNIPOTENTIAL CATHODE

HEATER

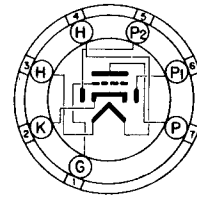
6.3 VOLTS 0.3 AMPERE

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

MINIATURE BUTTON
7 PIN BASE

THE 6AT6 IS A COMBINED HIGH-MU VOLTAGE AMPLIFIER AND DOUBLE-DIODE DETECTOR USING THE 7-PIN MINIATURE CONSTRUCTION. IT IS INTENDED TO PROVIDE OUTPUT VOLTAGE ADEQUATE FOR FULL POWER OUTPUT OF MOST BEAM-POWER TUBES.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

GRID TO PLATE: (G TO P)	2.1	μμf
INPUT: G TO (H + K)	2.3	μμf
OUTPUT: P TO (H + K)	1.1	μμf
DIODE PLATE #2 TO TRIODE GRID: (P_2 TO G) (MAX.)	0.025	μμf

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MINIMUM DIODE CURRENT WITH 10 VOLTS DC APPLIED	0.8	MA.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

TRIODE UNIT – CLASS A_1 AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.3	0.3	AMP.
PLATE VOLTAGE	100	250	VOLTS
GRID VOLTAGE	-1	-3	VOLTS
PLATE CURRENT	0.8	1.0	MA.
PLATE RESISTANCE	54 000	58 000	OHMS
TRANSCONDUCTANCE	1 300	1 200	μMHOS
AMPLIFICATION FACTOR	70	70	

DIODE UNITS – TWO

THE DIODE UNITS ARE INDEPENDENT OF THE TRIODE UNIT EXCEPT FOR THE COMMON CATHODE SLEEVE.

SIMILAR TYPE REFERENCE: Ratings and characteristics somewhat similar to 6Q7, 6Q7GT, 6SQ7, 6SQ7GT, 786, 706.

→ INDICATES A CHANGE OR ADDITION.

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PLATE 1840
JULY 1, 1947

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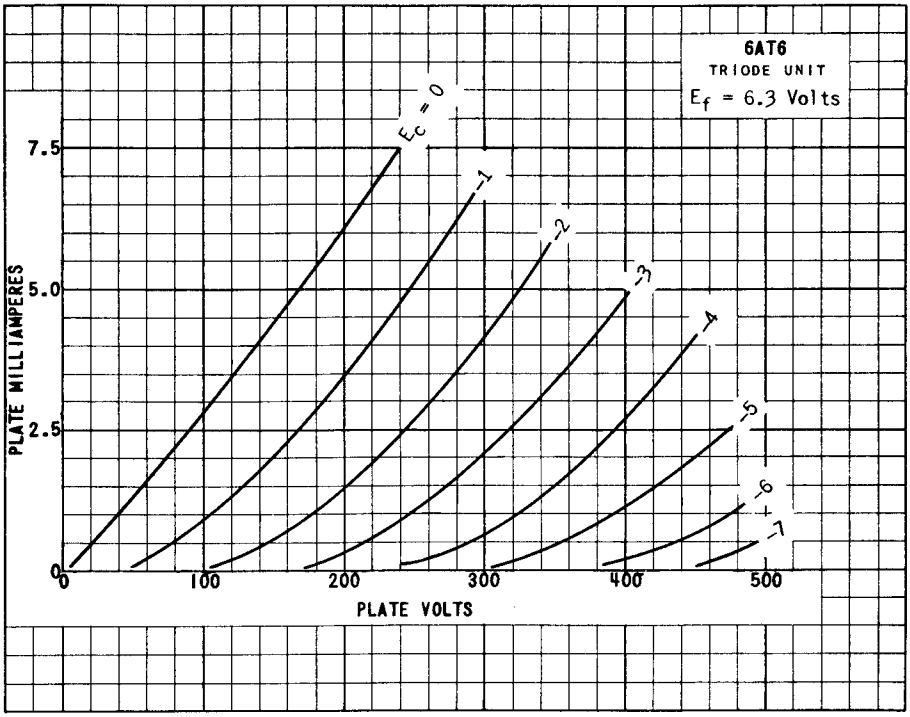
6AT6



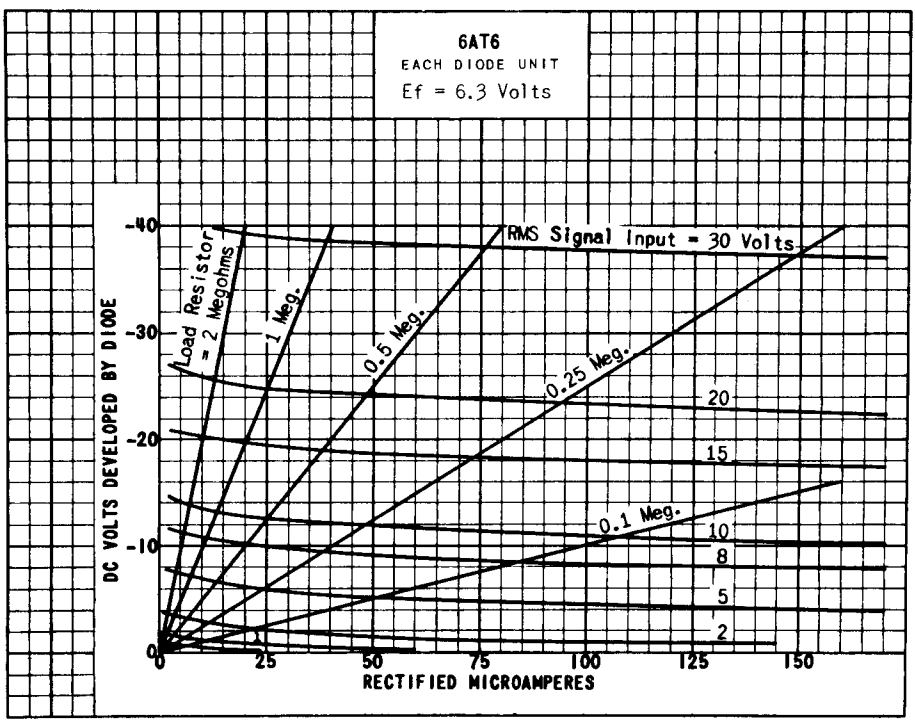


PLATE 1841

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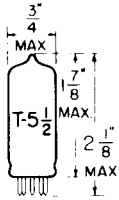
TUNG-SOL

DOUBLE DIODE TRIODE

MINIATURE TYPE

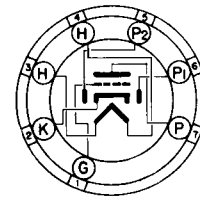


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.3 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE
7BT

THE 6AT6 IS A COMBINED HIGH-MU VOLTAGE AMPLIFIER AND DOUBLE-DIODE DETECTOR USING THE 7 PIN MINIATURE CONSTRUCTION. IT IS INTENDED TO PROVIDE OUTPUT VOLTAGE ADEQUATE FOR FULL POWER OUTPUT OF MOST BEAM POWER TUBES.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD[A]	WITHOUT SHIELD	
GRID TO PLATE: (G TO TRIODE PLATE)	2.0	2.0	μμf
INPUT: G TO (H+K)	2.2	2.2	μμf
OUTPUT: P TO (H+K)	1.2	0.8	μμf
COUPLING: #2 DIODE PLATE TO GRID (MAX.)	0.04	0.04	μμf
COUPLING: #1 DIODE PLATE TO GRID (MAX.)*		0.07	μμf
#2 DIODE PLATE TO HEATER AND CATHODE *		0.95	μμf
#1 DIODE PLATE TO HEATER AND CATHODE *		0.66	μμf

[A] EXTERNAL SHIELD #316 CONNECTED TO CATHODE.

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM PLATE DISSIPATION	0.5	WATT
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
MAXIMUM DIODE CURRENT (EACH UNIT) FOR CONTINOUS OPERATION	1.0	MA.

*INDICATES AN ADDITION.

CONTINUED ON FOLLOWING PAGE

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.3	0.3	AMP.
PLATE VOLTAGE	100	250	VOLTS
GRID #1 VOLTAGE	-1	-3	VOLTS
PLATE RESISTANCE	54 000	58 000	OHMS
AMPLIFICATION FACTOR	70	70	
TRANSCONDUCTANCE	1 300	1 200	µMHOS
PLATE CURRENT	0.8	1.0	MA.
AVERAGE DIODE CURRENT (EACH UNIT) AT 10 VOLTS DC	2.0	2.0	MA.

RESISTANCE COUPLED AMPLIFIER

TRIODE UNIT

HEATER VOLTAGE	6.3	6.3	VOLTS
PLATE SUPPLY VOLTAGE	90	250	VOLTS
CONTROL VOLTAGE	0	0	VOLTS
PLATE LOAD RESISTOR	220 000	470 000	OHMS
CONTROL GRID RESISTOR	10.0	10.0	MEGOHMS
INPUT CONDENSER	0.01	0.01	µf
OUTPUT CONDENSER	0.01	0.01	µf
GRID RESISTOR OF FOLLOWING STAGE	470 000	470 000	OHMS
SIGNAL SOURCE IMPEDANCE (MAX.)	1 000	1 000	OHMS
DISTORTION	5	5	PERCENT
OUTPUT VOLTAGE	8	34	VOLTS
VOLTAGE GAIN AT 400 CPS.	35	46	