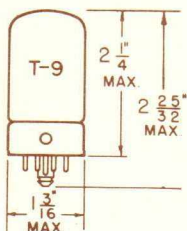


TUNG-SOL

OCTODE



GLASS BULB

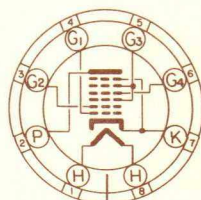
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 150 MA.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

LOCK-IN
8 PIN BASE

8U

THE 7A8 IS AN OCTODE CONVERTER USING THE LOCK-IN CONSTRUCTION. IT IS DESIGNED FOR USE IN AC, AC/DC AND AUTO RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

EXTERNAL SHIELD #308 CONNECTED TO PIN #7

MIXER GRID TO PLATE: (G ₄ TO P) MAX.	0.15	μμf
MIXER GRID TO OSCILLATOR ANODE: (G ₄ TO G ₂) MAX.	0.3	μμf
MIXER GRID TO OSCILLATOR GRID: (G ₄ TO G ₁) MAX.	0.15	μμf
OSCILLATOR GRID TO OSCILLATOR ANODE: (G ₁ TO G ₂)	0.6	μμf
MIXER INPUT: G ₄ TO (H+K+G ₁ +G ₂ +G ₃ &5+G ₆ +P)	7.5	μμf
MIXER OUTPUT: P TO (H+K+G ₁ +G ₂ +G ₃ &5+G ₄ +G ₆)	9	μμf
OSCILLATOR INPUT: G ₁ TO (H+K+G ₄ +G ₃ &5+G ₆ +P)	3.8	μμf
OSCILLATOR OUTPUT: G ₂ TO (H+K+G ₃ &5+G ₄ +G ₆ +P)	3.4	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM GRIDS #3 AND #5 VOLTAGE	100	VOLTS
MAXIMUM GRIDS #3 AND #5 SUPPLY VOLTAGE	300	VOLTS
MAXIMUM GRID #2 VOLTAGE	200	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	300	VOLTS
MINIMUM NEGATIVE GRID #4 VOLTAGE	0	VOLTS
MAXIMUM PLATE DISSIPATION	1	WATT
MAXIMUM GRIDS #3 AND #5 DISSIPATION	0.3	WATT
MAXIMUM GRID #2 DISSIPATION	0.75	WATT
MAXIMUM CATHODE CURRENT	13	MA.

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE.

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS^A

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	150	150	MA.
PLATE VOLTAGE	100	250	VOLTS
GRIDS #3 AND #5 VOLTAGE	75	100	VOLTS
GRID #2 VOLTAGE ^B	100	250	VOLTS
GRID #4 VOLTAGE	-3	-3	VOLTS
GRID #1 RESISTOR	50 000	50 000	OHMS
PLATE RESISTANCE (APPROX.)	0.65	0.7	MEGOHM
CONVERSION TRANSCONDUCTANCE	375	550	μMHOS
PLATE CURRENT	1.8	3	MA.
GRID #3 AND #5 CURRENT	2.7	3.2	MA.
GRID #2 CURRENT (OSCILLATOR ANODE)	2.8	4.2	MA.
GRID #1 CURRENT (OSCILLATOR GRID)	0.2	0.4	MA.
TOTAL CATHODE CURRENT	7.5	10.8	MA.

^A CHARACTERISTICS SHOWN ARE OBTAINED IN THE STANDARD RMA CONVERSION CONDUCTANCE TEST SET WHICH USES SEPARATE EXCITATION. THE CHARACTERISTICS UNDER THESE CONDITIONS CORRESPOND VERY CLOSELY WITH THOSE OBTAINED IN A SELF-EXCITED OSCILLATORY CIRCUIT OPERATING WITH ZERO BIAS.

^B APPLIED THROUGH A 20,000 OHM DROPPING RESISTOR.

OSCILLATOR CHARACTERISTICS
NOT OSCILLATING

PLATE VOLTAGE	250	VOLTS
GRID #1 VOLTAGE	0	VOLTS
GRID #2 VOLTAGE	180	VOLTS
GRIDS #3 AND #5 VOLTAGE	100	VOLTS
GRID #4 VOLTAGE	0 ←	VOLTS
TRANSCONDUCTANCE BETWEEN GRID #1 AND GRID #2	1 600	μMHOS
AMPLIFICATION FACTOR BETWEEN GRID #1 AND GRID #2	65	
GRID #2 CURRENT (OSCILLATOR ANODE)	10	MA.