

TUNG-SOL

DETECTOR AMPLIFIER-PENTODE

ACORN TYPE

COATED UNIPOTENTIAL CATHODE ^B

HEATER

6.3 VOLTS ^D 0.15 AMPERE

AC OR DC

RATINGS

RF OR AF AMPLIFIER CLASS A

MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM SCREEN (GRID 2) VOLTAGE	100	VOLTS
MAXIMUM SUPPRESSOR (GRID 3) VOLTAGE	100	VOLTS
MINIMUM CONTROL GRID VOLTAGE (GRID 1)	-3	VOLTS
MAXIMUM PLATE DISSIPATION	0.5	WATT
MAXIMUM SCREEN DISSIPATION	0.1	WATT

DIRECT INTERELECTRODE CAPACITANCES

CONTROL GRID TO CATHODE	3	μ mf
PLATE TO CATHODE	3.4	μ mf
GRID TO PLATE (WITH SHIELD BAFFLE)	0.007 (MAX.)	μ mf

TYPICAL OPERATION AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
PLATE VOLTAGE	90	250	VOLTS
SCREEN VOLTAGE (GRID 2)	90	100	VOLTS
CONTROL GRID VOLTAGE (GRID 1)	-3	-3	VOLTS
AMPLIFICATION FACTOR	1100	> 2000	
PLATE RESISTANCE	1.0	> 1.5	MEGOHMS
MUTUAL CONDUCTANCE	1100	1400	μ MHOS
PLATE CURRENT	1.2	2.0	MA.
SCREEN CURRENT	0.5	0.7	MA.
SUPPRESSOR CONNECTED TO CATHODE AT SOCKET (GRID 3)			

RESISTANCE COUPLED A-F VOLTAGE AMPLIFIER

HEATER VOLTAGE	6.3	VOLTS
PLATE-SUPPLY VOLTAGE ^A	250	VOLTS
SCREEN VOLTAGE (GRID 2)	50	VOLTS
CONTROL GRID VOLTAGE (GRID 1) ^C	-2.1	VOLTS
LOAD RESISTANCE	0.25	MEGOHM
PLATE CURRENT	0.5	MA.
VOLTAGE OUTPUT (5% SECOND HAR.)	40 TO 50	VOLTS (RMS)
VOLTAGE AMPLIFICATION (APPROX.)	100	
SUPPRESSOR CONNECTED TO CATHODE AT SOCKET (GRID 3)		

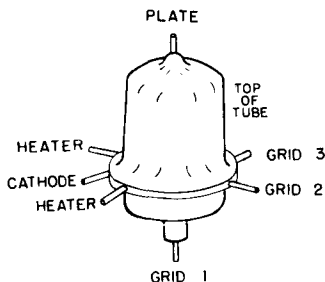
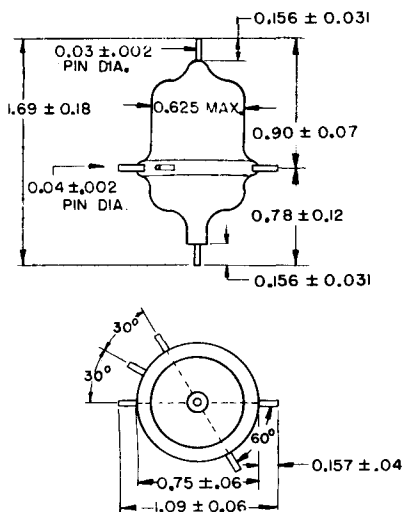
(CONTINUED NEXT PAGE)

TUNG-SOL

BIASED DETECTOR

HEATER VOLTAGE	6.3	VOLTS
PLATE-SUPPLY VOLTAGE	250	VOLTS
SCREEN VOLTAGE (GRID 2)	100	VOLTS
CONTROL GRID VOLTAGE (GRID 1) (APPROX.)	-6	VOLTS
LOAD RESISTANCE	0.25	MEGOHM
PLATE CURRENT	ADJUSTED TO 0.1 MA. WITH NO INPUT SIGNAL	
SELF-BIAS RESISTOR	20000 TO 50000	OHMS
SUPPRESSOR CONNECTED TO CATHODE AT SOCKET (GRID 3)		

- A* THIS IS A PLATE-SUPPLY VOLTAGE VALUE. THE VOLTAGE EFFECTIVE AT THE PLATE WILL BE THE PLATE-SUPPLY VOLTAGE MINUS THE VOLTAGE DROP (IN THE LOAD RESISTOR) CAUSED BY THE PLATE CURRENT.
- B* IN CIRCUITS WHERE THE CATHODE IS NOT DIRECTLY CONNECTED TO THE HEATER, THE POTENTIAL DIFFERENCE BETWEEN HEATER AND CATHODE SHOULD BE KEPT AS LOW AS POSSIBLE. IF THE USE OF A LARGE RESISTOR BETWEEN HEATER AND CATHODE IS NECESSARY BECAUSE OF CIRCUIT CONSIDERATIONS, IT IS ESSENTIAL THAT THIS RESISTOR BE BY-PASSED BY A SUITABLE FILTER NETWORK OR OBJECTIONABLE HUM MAY DEVELOP.
- C* THE D-C RESISTANCE IN THE GRID CIRCUIT SHOULD NOT EXCEED 1.0 MEGOHM.
- D* SHOULD NOT DEVIATE MORE THAN $\pm 10\%$ FROM RATED VALUE.



954-956

PIN CONNECTIONS

ALL LINEAR DIMENSIONS ARE
SPECIFIED IN INCHES

PLATE
1352-1
OCT. 25
1943