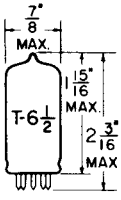
TUNG-SOL

TWIN TRIODE

MINIATURE TYPE

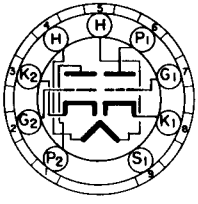


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.4 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
SMALL BUTTON NOVAL
9 PIN BASE
9AJ

THE 6BX8 IS A MINIATURE TWIN TRIODE DESIGNED FOR OPERATION AS A CASCODE (VHF) AMPLIFIER IN TELEVISION RECEIVERS WHERE LOW SUPPLY VOLTAGES ARE EMPLOYED. EXCEPT FOR HEATER RATINGS AND HEATER WARM-UP TIME, THE 6BX8 IS IDENTICAL TO THE 4BX8.

DIRECT INTERELECTRODE CAPACITANCES[A]

	#1 TRIODE	#2 TRIODE	
GRID TO PLATE (G TO P)	1.4	1.4	μμf
PLATE TO CATHODE (P TO K)	.165	.165	μμf
#2 INPUT: G TO (H+K+I.S.)	---	2.4	μμf
#1 INPUT: K TO (H+G+I.S.)[B]	4.9	---	μμf
#2 OUTPUT: P TO (H+K+I.S.)	---	1.25	μμf
#1 OUTPUT: P TO (H+G+I.S.)[B]	2.6	---	μμf

RATINGS[C]

INTERPRETED ACCORDING TO DESIGN-MAXIMUM VALUES
EACH SECTION

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM DC PLATE VOLTAGE	150	VOLTS
MAXIMUM DC CATHODE CURRENT	20	MA.
MAXIMUM PLATE DISSIPATION	2.0	WATTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM CIRCUIT VALUE: (EACH UNIT)		
GRID CIRCUIT RESISTANCE	0.5	MEGOHM
HEATER WARM-UP TIME*	11.0	SECONDS

[A] EXTERNAL SHIELD #315 CONNECTED TO PIN 9.

[B] READ AS GROUNDED GRID AMPLIFIER.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

AVERAGE CHARACTERISTICS

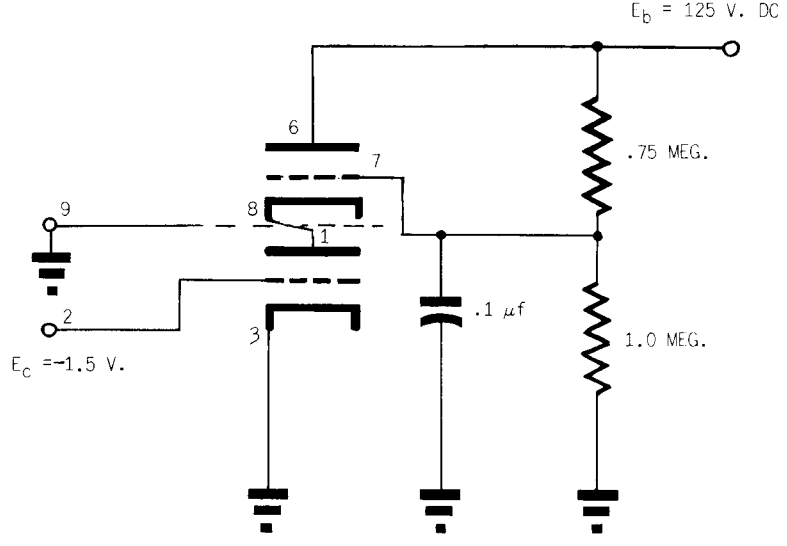
HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.4	AMP.
PLATE VOLTAGE	65	VOLTS
GRID VOLTAGE	-1.0	VOLTS
AMPLIFICATION FACTOR	25	
PLATE CURRENT	9	MA.
GRID VOLTAGE (APPROX.) FOR Ib = 10 μA	-7	VOLTS
TRANSCONDUCTANCE	6 700	μMHOS

AVERAGE CHARACTERISTICS -- CASCODE OPERATION

PLATE SUPPLY VOLTAGE	125	VOLTS
GRID VOLTAGE	-.5	VOLTS
PLATE CURRENT	11	MA.
TRANSCONDUCTANCE	7 500	μMHOS

[C] DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOGIE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

[*] HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.



CASCODE TEST CIRCUIT.