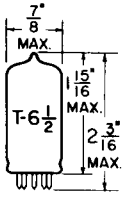
TUNG-SOL

TRIODE TETRODE

MINIATURE TYPE

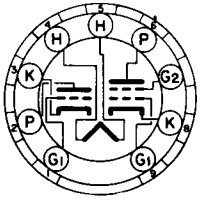


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
4.7 VOLTS 0.6 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE
9FX

THE 5CL8 IS A MINIATURE TRIODE TETRODE DESIGNED FOR USE AS A VHF OSCILLATOR-MIXER. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. EXCEPT FOR HEATER RATINGS, THE 5CL8 IS IDENTICAL TO THE 6CL8.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD #315	WITHOUT SHIELD	
TRIODE:			
GRID TO PLATE (G TO P)	1.8	1.8	μμf
INPUT: G TO (H + K)	2.7	2.7	μμf
OUTPUT: P TO (H + K)	1.2	0.4	μμf
TETRODE:			
GRID TO PLATE (G_1 TO P) (MAX.)	.016	.028	μμf
INPUT: G_1 TO (H+K+G_2)	5.0	5.0	μμf
OUTPUT: P TO (H+K+G_2)	3.0	2.0	μμf
CATHODE TO HEATER (EITHER SECTION APPROX.)	2.5	2.5	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

	TRIODE	TETRODE	
HEATER VOLTAGE	4.7	4.7	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK	200	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC	100	100	VOLTS
TOTAL DC AND PEAK	200	200	VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE		300	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART		
MAXIMUM PLATE DISSIPATION	2.7	2.8	WATTS
MAXIMUM GRID #2 DISSIPATION	---	0.5	WATT
MAXIMUM POSITIVE GRID #1 VOLTAGE	0	0	VOLTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS—CONT'D.

	TRIODE	TETRODE	
MAXIMUM GRID #1 CIRCUIT RESISTANCE:			
FIXED BIAS	0.5	0.25	MEGOHM
SELF BIAS	1.0	1.0	MEGOHM
HEATER WARM-UP TIME*	11.0		SECONDS

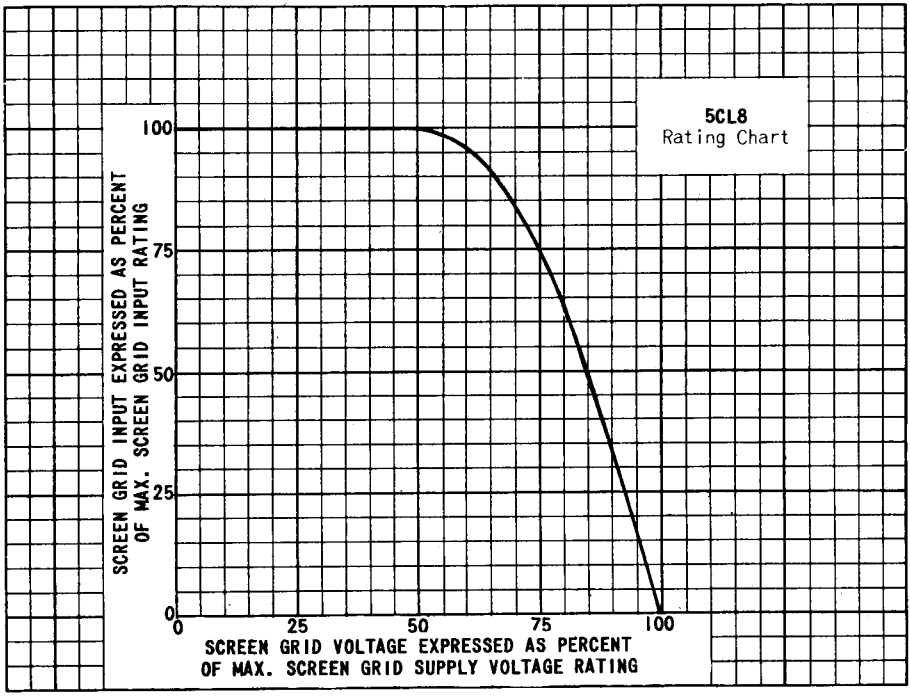
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

HEATER VOLTAGE	4.7	4.7	VOLTS
HEATER CURRENT	0.6	0.6	AMP.
PLATE VOLTAGE	125	125	VOLTS
GRID #2 VOLTAGE	---	125	VOLTS
GRID #1 VOLTAGE	0	-1.0	VOLTS
CATHODE BIAS RESISTOR	56	---	OHMS
AMPLIFICATION FACTOR	40	---	
PLATE RESISTANCE (APPROX.)	.005	0.1	MEGOHM
TRANSCONDUCTANCE	8 000	5 800	μMHOS
PLATE CURRENT	15	12	MA.
GRID #2 CURRENT	---	4.0	MA.
GRID #1 VOLTAGE (APPROX.) FOR I_b =10 μA. DC	-9	-10	VOLTS

*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.

SIMILAR TYPE REFERENCE: Except for heater ratings and heater warm-up time the 5CL8 is identical to the 6CL8.


5CL8
Rating Chart
SCREEN GRID INPUT EXPRESSED AS PERCENT OF MAX. SCREEN GRID INPUT RATING
100
75
50
25
0
0
25
50
75
100
SCREEN GRID VOLTAGE EXPRESSED AS PERCENT OF MAX. SCREEN GRID SUPPLY VOLTAGE RATING