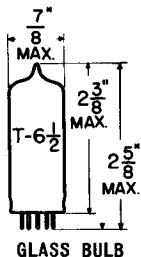


TUNG-SOL

AMPLIFIER
MINIATURE TYPE

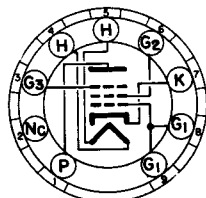
UNIPOTENTIAL CATHODE

HEATER

6.0±10% VOLTS 0.75 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

SMALL-BUTTON NOVAL
9 PIN BASE
9K

THE 5763 IS A HEATER-CATHODE TYPE TRANSMITTING BEAM POWER AMPLIFIER IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR USE IN COMPACT, LOW-POWER MOBILE TRANSMITTERS AND IN THE LOW-POWER STAGES OF LARGER FIXED STATION TRANSMITTERS. THE 5763 IS PARTICULARLY USEFUL IN THE DOUBLER AND TRIPLER STAGES OF TRANSMITTERS.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE (MAX.)	0.3	pf
INPUT	9.5	pf
OUTPUT	4.5	pf

RATINGS

ABSOLUTE VALUES

PLATE-MODULATED RF POWER AMPLIFIER - CLASS C TELEPHONY

CARRIER CONDITIONS PER TUBE FOR USE WITH A MAX. MODULATION FACTOR OF 1.0

	CCS ^A	ICCS ^B	
MAXIMUM DC PLATE VOLTAGE	250	300	VOLTS
MAXIMUM DC GRID #3 (SUPPRESSOR) VOLTAGE	0	0	VOLTS
MAXIMUM DC GRID #2 (SCREEN) VOLTAGE	250	250	VOLTS
MAXIMUM DC GRID #1 (CONTROL-GRID) VOLTAGE	-125	-125	VOLTS
MAXIMUM DC PLATE CURRENT	40	50	MA.
MAXIMUM DC GRID #2 CURRENT	15	15	MA.
MAXIMUM DC GRID #1 CURRENT	5	5	MA.
MAXIMUM PLATE INPUT	10	15	WATTS
MAXIMUM GRID #2 INPUT	1.5	1.5	WATTS
MAXIMUM PLATE DISSIPATION	8	12	WATTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE	100	100	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	100	100	VOLTS
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	250	250	°C

^A CONTINUOUS COMMERCIAL SERVICE.^B INTERMITTENT COMMERCIAL AND AMATEUR SERVICE
CONTINUED ON FOLLOWING PAGE

TUN-801

CONTINUED ON FOLLOWING PAGE

TYPICAL OPERATION UP TO 30 MC

DC PLATE VOLTAGE	250	300	
GRID #3	CONNECTED TO CATHODE AT SOCKET		
DC GRID #2 VOLTAGE ^C	250	250	VOLTS
DC GRID #1 VOLTAGE ^D	-39	-42.5	VOLTS
From a grid resistor of	39000	18000	OHMS
PEAK RF GRID #1 VOLTAGE	46.5	53.5	VOLTS
DC PLATE CURRENT	40	50	MA.
DC GRID #2 CURRENT	5.6	6	MA.
DC GRID #1 CURRENT (APPROX.)	1	2.4	MA.
DRIVING POWER (APPROX.)	0.05	0.15	WATT
USEFUL POWER OUTPUT (APPROX.)	6.4 ^E	10 ^E	WATTS

MAXIMUM CIRCUIT VALUES

CCS OR ICAS CONDITIONS

GRID #1 CIRCUIT RESISTANCE (MAX.)	0.1	MEGOHM
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RATINGS

ABSOLUTE MAXIMUM VALUES

 RF POWER AMPLIFIER & OSCILLATOR - CLASS C TELEGRAPHY^G
 and
 RF POWER AMPLIFIER - CLASS C FM TELEPHONY

	CCS ^A	ICAS ^B	
DC PLATE VOLTAGE	300	350	VOLTS
DC GRID #3 (SUPPRESSOR) VOLTAGE	0	0	VOLTS
DC GRID #2 (SCREEN) VOLTAGE	250	250	VOLTS
DC GRID #1 (CONTROL-GRID) VOLTAGE	-125	-125	VOLTS
DC PLATE CURRENT	50	50	MA.
DC GRID #2 CURRENT	15	15	MA.
DC GRID #1 CURRENT	5	5	MA.
PLATE INPUT	15	17	WATTS
GRID #2 INPUT	2	2	WATTS
PLATE DISSIPATION	12	13.5	WATTS
PEAK HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE	100	100	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	100	100	VOLTS
BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	250	250	°C

TYPICAL OPERATION UP TO 30 MC

DC PLATE VOLTAGE	300	350	VOLTS
GRID #3	CONNECTED TO CATHODE AT SOCKET		
DC GRID #2 VOLTAGE	250	250	VOLTS
DC GRID #1 VOLTAGE ^F	-28.5	-28.5	VOLTS
From a grid resistor of	18000	18000	OHMS
PEAK RF GRID #1 VOLTAGE	37.5	37	VOLTS
DC PLATE CURRENT	50	48.5	MA.
DC GRID #2 CURRENT	6.6	6.2	MA.
DC GRID #1 CURRENT (APPROX.)	1.6	1.6	MA.
DRIVING POWER (APPROX.)	0.1	0.1	WATT
USEFUL POWER OUTPUT (APPROX.)	10.3 ^E	12 ^E	WATTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATION AT 50 MC

DC PLATE VOLTAGE	300	---	VOLTS
GRID #3	CONNECTED TO CATHODE AT SOCKET		
DC GRID #2 VOLTAGE	250	---	VOLTS
DC GRID #1 VOLTAGE ^F	-60	---	VOLTS
From a grid resistor of	22000	---	OHMS
PEAK RF GRID #1 VOLTAGE	80	---	VOLTS
DC PLATE CURRENT	50	---	MA.
DC GRID #2 CURRENT	5	---	MA.
DC GRID #1 CURRENT (APPROX.)	3	---	MA.
DRIVING POWER (APPROX.)	0.35	---	WATT
USEFUL POWER OUTPUT (APPROX.)	7 ^E	---	WATTS

MAXIMUM CIRCUIT VALUES

CCS OR ICAS CONDITIONS

GRID #1 CIRCUIT RESISTANCE (MAX.)	0.1	MEGOHM
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RATINGS

ABSOLUTE MAXIMUM VALUES

FREQUENCY MULTIPLIER

	ccs ^A	
DC PLATE VOLTAGE	300	VOLTS
DC GRID #3 (SUPPRESSOR) VOLTAGE	0	VOLTS
DC GRID #2 (SCREEN) VOLTAGE	250	VOLTS
DC GRID #1 (CONTROL-GRID) VOLTAGE	-125	VOLTS
DC PLATE CURRENT	50	MA.
DC GRID #2 CURRENT	15	MA.
DC GRID #1 CURRENT	5	MA.
PLATE INPUT	15	WATTS
GRID #2 INPUT	2	WATTS
PLATE DISSIPATION	12	WATTS
PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	100	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	100	VOLTS
BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	250	°C

TYPICAL OPERATION

	DOUBLER TO 175 MC	TRIPLER TO 175 MC	
DC PLATE VOLTAGE	300	300	VOLTS
GRID #3	CONNECTED TO CATHODE AT SOCKET		
DC GRID #2 VOLTAGE			
DC GRID #1 VOLTAGE ^F	-75	-100	VOLTS
From grid resistor of	75000	100000	OHMS
PEAK RF GRID #1 VOLTAGE	95	120	VOLTS
DC PLATE CURRENT	40	35	MA.
DC GRID #2 CURRENT	4	5	MA.
DC GRID #1 CURRENT (APPROX.)	1	1	MA.
DRIVING POWER APPROX.	0.6	0.6	WATT
USEFUL POWER OUTPUT (APPROX.)	2.1 ^E	1.3 ^E	WATTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM CIRCUIT VALUES
FOR MAXIMUM RATED CONDITIONS

GRID #1 CIRCUIT RESISTANCE(MAX.) 0.1 MEGOHM

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

	NOTE	MIN.	MAX.	
HEATER CURRENT	1	0.69	0.81	AMP.
GRID #1 PLATE CAPACITANCE	2	---	0.3	pf
INPUT CAPACITANCE	2	8.0	11.0	pf
OUTPUT CAPACITANCE	2	3.8	5.2	pf
TRANSCONDUCTANCE	1,3	5100	8900	μMHOS
PLATE CURRENT	1,3	33	57	MA.
GRID #2 CURRENT	1,3	---	10	MA.
REVERSE GRID #1 CURRENT	1,4	---	2	μAMP.

NOTE 1: WITH 6 VOLTS AC OR DC ON HEATER.

NOTE 2: WITH NO EXTERNAL SHIELD

NOTE 3: WITH DC PLATE VOLTAGE OF 250 V., DC GRID #2 VOLTAGE OF 250 V., & DC GRID #1 VOLTAGE OF -7.5 VOLTS.

NOTE 4: WITH DC PLATE VOLTAGE OF 250 V, DC GRID #2 VOLTAGE OF 250 V, DC GRID #1 VOLTAGE OF -7.5 VOLTS, AND GRID #1 CIRCUIT RESISTANCE OF 0.1 MEGOHM.

A CONTINUOUS COMMERCIAL SERVICE

B INTERMITTENT COMMERCIAL AND AMATEUR SERVICE.

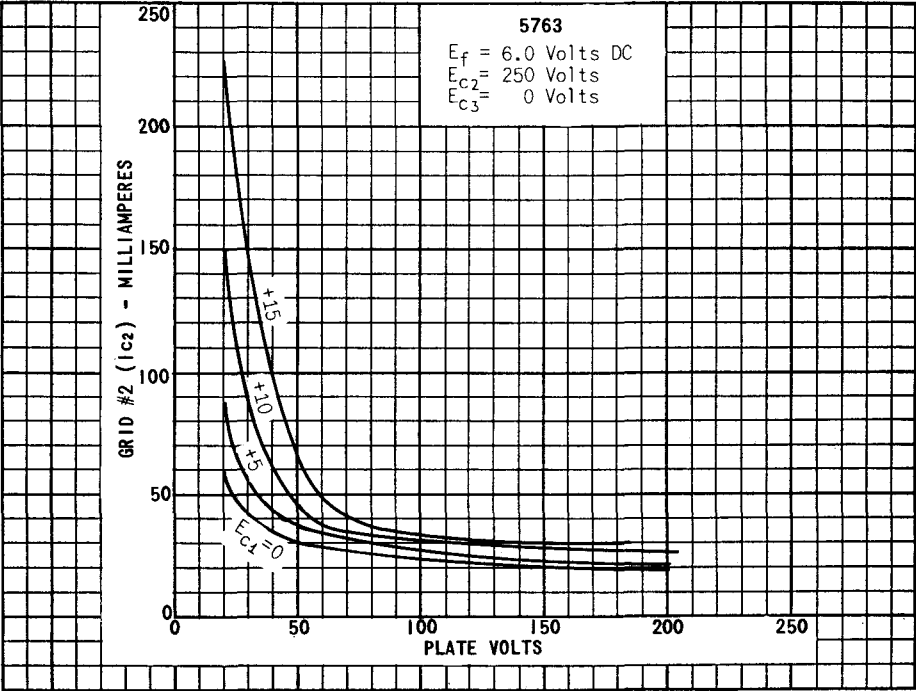
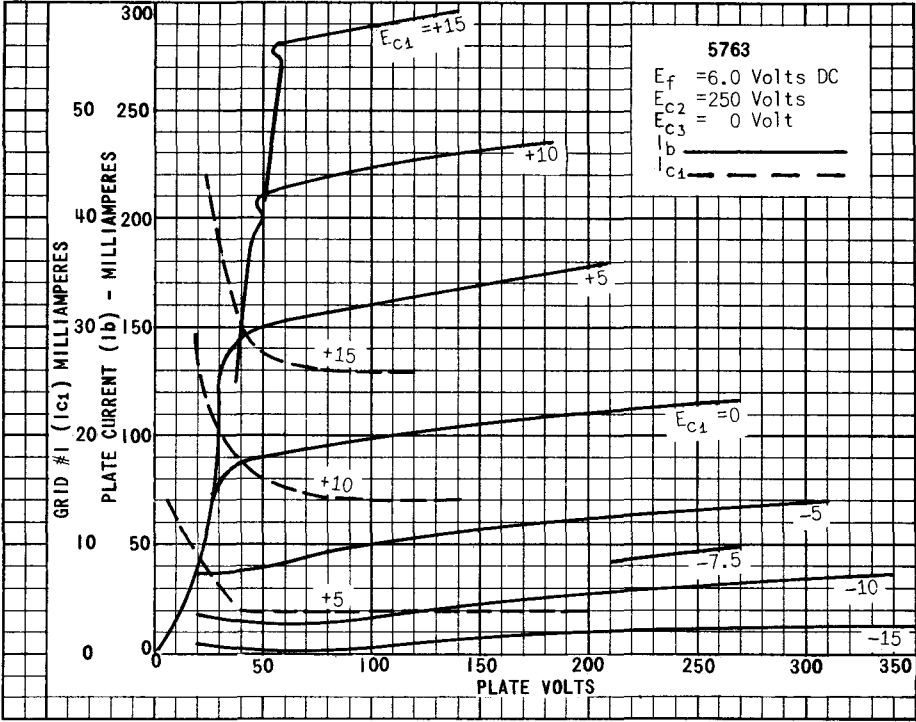
C OBTAINED PREFERABLY FROM A SEPARATE SOURCE MODULATED WITH THE PLATE SUPPLY, OR FROM THE MODULATED PLATE SUPPLY THROUGH A SERIES RESISTOR.

D OBTAINED FROM GRID #1 RESISTOR OR FROM A COMBINATION OF GRID #1 RESISTOR WITH EITHER FIXED SUPPLY OR CATHODE RESISTOR.

E THIS VALUE OF USEFUL POWER IS MEASURED AT LOAD OF OUTPUT CIRCUIT.

F OBTAINED FROM A FIXED SUPPLY, OR BY A GRID #1 RESISTOR OF VALUE SHOWN.

G KEY DOWN CONDITIONS PER TUBE WITHOUT AMPLITUDE MODULATION. MODULATION ESSENTIALLY NEGATIVE MAY BE USED IF THE POSITIVE PEAK OF THE AUDIO-FREQUENCY ENVELOPE DOES NOT EXCEED 115% OF THE CARRIER CONDITIONS.



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WITH E_{C2} AS VARIABLE $E_f = 6.0$ Volts DC $E_{C1} = 0$ Volt $E_{C3} = 0$ Volt