



ELECTRONIC TUBE REFERENCE

2000T

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Very large Eimac transmitting triode for high-power RF amplifier, oscillator, modulator, and audio-power service. Rated for 2 kW plate dissipation, it supports multi-kilowatt RF output and push-pull audio output approaching 9 kW.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	4
NOMINAL HEATER	10 V / 23.5 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.011 S
AMPLIFICATION FACTOR	23
MAXIMUM PLATE VOLTAGE	8000 V
MAXIMUM PLATE DISSIPATION	2000 W
MAXIMUM GRID DISSIPATION	150 W
Published RF/AF maximum ratings and average characteristics promoted.	

The Eimac 2000T is a medium-mu high-vacuum transmitting triode for high-power amplifier, oscillator, and modulator service, rated for 2000 watts plate dissipation.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Eimac Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1950 EIMAC TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
m o d u l a t o r s e r v i c e . It has a m a x i m u m p l a t e d i s s i p a t i o n r a t i n g o f [1]	2000	m o d u l a t o r s e r v i c e . It has a m a x i m u m p l a t e d i s s i p a t i o n r a t i n g o f 2000 w a t t s . Cooling of the 2000T is
m o d u l a t o r s e r v i c e . It has a m a x i m u m p l a t e d i s s i p a t i o n r a t i n g o f [2]	2000	m o d u l a t o r s e r v i c e . It has a m a x i m u m p l a t e d i s s i p a t i o n r a t i n g o f 2000 w a t t s . Cooling of the 2000T is
Voltage	10 V	Voltage 10.0 vol ts
Current [1]	25 A	Current - 25 .0 amperes
Current [2]	0 mA	Current - 25 .0 amperes
Grid-Plate	8.5	Grid-Plate 8.5 p.p.fd .
Grid - Filament [1]	12	Grid - Filament - 12 .7 p.p.fd .
Grid - Filament [2]	7	Grid - Filament - 12 .7 p.p.fd .
D·C PLATE VOLTAGE - ~	8000 V	D·C PLATE VOLTAGE - ~8000 MAX. VOLTS
D-C PLATE VOLTAGE - ~	8 V	D-C PLATE VOLTAGE - ~ 8000 MA X. VOLTS
D·C PLATE CURRENT	1.75 mA	D·C PLATE CURRENT 1.75 MAX . AMPS .
MAX-SIGNAL D·C PLATE CURRE NT, PER TUBE	1.75	MAX-SIGNAL D·C PLATE CURRE NT, PER TUBE 1.75 MAX. A M PS.
PLATE DISSIP ATIO N	2000	PLATE DISSIP ATIO N 2000 MA X. WA TTs
PLATE DISSIP ATION, PER TU8E	2000	PLATE DISSIP ATION, PER TU8E - 2000 MAX. WATTS
GRID DISSI PATION	150	GRID DISSI PATION 150 MAX. W ATTS
GRID DISSIPATION , PER TUBE	150 W	GRID DISSIPATION , PER TUBE 150 MAX. WATTS
D-C Pla te Voltag e [1]	5000 V	D-C Pla te Voltag e 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D-C Plate Voltage [2]	6000 V	D-C Plate Voltage 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts
D-C Plate Voltage [3]	7000 V	D-C Plate Voltage 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts
D-C Plate Voltage [4]	5000 V	D-C Plate Voltage 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts
D-C Plate Voltage [5]	6000 V	D-C Plate Voltage 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts
D-C Plate Voltage [6]	7000 V	D-C Plate Voltage 5000 6000 7000 vo lts D-C Plate Voltage 5000 6000 7000 vo lts
D-C Grid Voltage [1]	-350 V	D-C Grid Voltage -350 -SOO -600 volts D-C Grid Voltage -180 -230 -290 vo lts
D-C Grid Voltage [2]	-600 V	D-C Grid Voltage -350 -SOO -600 volts D-C Grid Voltage -180 -230 -290 vo lts
D-C Grid Voltage [3]	-180 V	D-C Grid Voltage -350 -SOO -600 volts D-C Grid Voltage -180 -230 -290 vo lts
D-C Grid Voltage [4]	-230 V	D-C Grid Voltage -350 -SOO -600 volts D-C Grid Voltage -180 -230 -290 vo lts
D-C Grid Voltage [5]	-290 V	D-C Grid Voltage -350 -SOO -600 volts D-C Grid Voltage -180 -230 -290 vo lts
D-C Plate Current [1]	1.35	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Plate Current [2]	1.35	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Plate Current [3]	1.15	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Plate Current [4]	480	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Plate Current [5]	400	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Plate Current [6]	350	D-C Plate Current 1.35 1.35 1.15 amp s Ze ro - Sig nal D-C Plate Current 480 400 350 mao
D-C Grid Current [1]	175 mA	D-C Grid Current 175 165 120 ma o Max -Signal D-C Plate Current 2.00 1.8B I.B6 amps .
D-C Grid Current [2]	165 mA	D-C Grid Current 175 165 120 ma o Max -Signal D-C Plate Current 2.00 1.8B I.B6 amps .
D-C Grid Current [3]	120 mA	D-C Grid Current 175 165 120 ma o Max -Signal D-C Plate Current 2.00 1.8B I.B6 amps .
D-C Grid Current [4]	2 mA	D-C Grid Current 175 165 120 ma o Max -Signal D-C Plate Current 2.00 1.8B I.B6 amps .

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D-C Grid Current [5]	1.8 mA	D-C Grid Current 175 165 120 ma o Max -Signal D-C Pla te Current 2.00 1.8B I.B6 amps .
Gr id Dissipation [1]	79 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Gr id Dissipation [2]	78 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Gr id Dissipation [3]	43 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Gr id Dissipation [4]	4900 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Gr id Dissipation [5]	6650 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Gr id Dissipation [6]	8500 W	Gr id Dissipation 79 78 43 wa tt s Effective Load, Pla t e -to- Pla te 4900 6650 8500 ohms
Peak R-F G rid Input Vo lt a g e (appro x.) [1]	900 V	Peak R-F G rid Input Vo lt a g e (appro x.) 900 1050 1060 vo lts Peak A- F G rid Input Voltage (per t ube) 470 525 590 vo lts
Peak R-F G rid Input Vo lt a g e (appro x.) [2]	1050 V	Peak R-F G rid Input Vo lt a g e (appro x.) 900 1050 1060 vo lts Peak A- F G rid Input Voltage (per t ube) 470 525 590 vo lts
Peak R-F G rid Input Vo lt a g e (appro x.) [3]	1060 V	Peak R-F G rid Input Vo lt a g e (appro x.) 900 1050 1060 vo lts Peak A- F G rid Input Voltage (per t ube) 470 525 590 vo lts


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1962 EIMAC

Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-Plate Capacitance	8.5 pF	—
Grid-Filament Capacitance	12.7 pF	—
Plate-Filament Capacitance	1.7 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Current	1.75 A	RF/AF
RF Typical Plate Voltage	7000 V	ClassC
RF Typical Plate Power Output	6000 W	ClassC
AF Typical Plate Voltage	7000 V	ClassB;TwoTubes
AF Typical Plate Power Output	9000 W	ClassB;TwoTubes



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1965 Eimac Tube Manual

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1965 EIMAC TUBE MANUAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
and modulator service. It has a maximum plate dissipation rating of [1]	2000 W	and modulator service. It has a maximum plate dissipation rating of 2000 wet+s. Cooling of the 2000T
and modulator service. It has a maximum plate dissipation rating of [2]	2000 W	and modulator service. It has a maximum plate dissipation rating of 2000 wet+s. Cooling of the 2000T
Voltage	10 V	Voltage - - 10.0 volts
Current	23.5 A	Current - - 23.5 amperes
Transconductance (ib=l [1])	75 mA/V	Transconductance (ib=1.75 amp., Eh=6000 v.) - - -
Transconductance (ib=l [2])	6000 mA/V	Transconductance (ib=1.75 amp., Eh=6000 v.) - - -
Plate . . Eimac HR	8	Plate . . Eimac HR-8

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AUDIO FREQUENCY POWER AMPLIFIER TYPICAL OPERATION	2 W	AUDIO FREQUENCY POWER AMPLIFIER TYPICAL OPERATION-2 TUBES
D-C PIATE VOLTAGE	8000 V	D-C PIATE VOLTAGE ----- 8000 MAX. VOLTS
PLATE DISSIPATION. PER TUBE	2000 W	PLATE DISSIPATION. PER TUBE - - - 2000 MAX. WATTS
D-C Plate Current - - - , I [1]	35 A	D-C Plate Current - - - , I.35 I.35 I.15 Amp!.
D-C Plate Current - - - , I [2]	35 A	D-C Plate Current - - - , I.35 I.35 I.15 Amp!.
D-C Plate Current - - - , I [3]	15 A	D-C Plate Current - - - , I.35 I.35 I.15 Amp!.
MAXIMUM RATINGS (Frequencies below	40 MHz	MAXIMUM RATINGS (Frequencies below 40 Mc.) Plat® Power Input - - -
D-C PLATE VOLTAGE	8000 V	D-C PLATE VOLTAGE ----- 8000 MAX. VOLTS Plate power output - - -
PLATE MODULATED RADIO FREQUENCY TYPICAL OPERATION, PER TUBE'. (Fr®quenci@s below	40 MHz	PLATE MODULATED RADIO FREQUENCY TYPICAL OPERATION, PER TUBE'. (Fr®quenci@s below 40 Mc.)
MAXIMUM RATINGS (Frequencies below	40 MHz	MAXIMUM RATINGS (Frequencies below 40 Mc.) Driving power (approx.) - - -
D-C PLATE VOLTAGE	6000 V	D-C PLATE VOLTAGE ----- 6000 MAX. VOLTS Plato Dissipation -----
D-C PLATE CURRENT - - - - l`	4 mA	D-C PLATE CURRENT ----- l`4 MAX AMPS.
PLATE DISSIPATloN	1350	PLATE DISSIPATloN ----- 1350 MAX. WATTS
GRID DISSIPATION	150 W	GRID DISSIPATION ----- 150 MAX. WATTS
Published value [1]	8 V	8eoc:lei:gfi°Forsceevde.ra:rvitroai:i°gni:nrdeqsuhi::5.ontheenvelope Plate Voltage-The plate supply voltage for the 2000T
Published value [2]	5 V	8eoc:lei:gfi°Forsceevde.ra:rvitroai:i°gni:nrdeqsuhi::5.ontheenvelope Plate Voltage-The plate supply voltage for the 2000T
Published value [3]	2000 V	8eoc:lei:gfi°Forsceevde.ra:rvitroai:i°gni:nrdeqsuhi::5.ontheenvelope Plate Voltage-The plate supply voltage for the 2000T
and also in the base of the tube. Envelope cooling may should not exceed	8000	and also in the base of the tube. Envelope cooling may should not exceed 8000 volts. In most cases there is little

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
be accomplished by locating an ordinary	8 V	be accomplished by locating an ordinary 8- or 10-inch fan advantage in using plate-supply voltages higher than
Base cooling requires an air flow of [1]	21 W	Base cooling requires an air flow of 21/2 cu. ft. per min. Grid Dissipation~The power dissipated by the grid of the
Base cooling requires an air flow of [2]	2 W	Base cooling requires an air flow of 21/2 cu. ft. per min. Grid Dissipation~The power dissipated by the grid of the
directed up through the bottom of the base toward the [1]	2000 W	directed up through the bottom of the base toward the 2000T must not exceed 150 watts. Grid dissipation may
directed up through the bottom of the base toward the [2]	150 W	directed up through the bottom of the base toward the 2000T must not exceed 150 watts. Grid dissipation may
Published value	0.1 W	0.1 inch of water is required at the manifold to provide where $P_g \pm$ Grid dissipation,
the [1]	21 V	the 21/2 cu. ft. per min. $e_{cmp} \pm$ Peak positive grid voltage, and
the [2]	2 V	the 21/2 cu. ft. per min. $e_{cmp} \pm$ Peak positive grid voltage, and
One type of socket provides a [1]	1 A	One type of socket provides a 1/4 inch diameter pipe $I_c \pm D$ -c grid current.
One type of socket provides a [2]	4 A	One type of socket provides a 1/4 inch diameter pipe $I_c \pm D$ -c grid current.
filament voltage must be kept within t,he range from	9.5 V	filament voltage must be kept within t,he range from 9.5 Plate Dissipation-Under normal operating conditions,
to [1]	10.5 W	to 10.5 volts. All four socket terminals should be used, the power dissipated by the plate of the 2000T should
to [2]	2000 W	to 10.5 volts. All four socket terminals should be used, the power dissipated by the plate of the 2000T should
putting two in parallel for each filament connection. not be allowed to exceed	2000 W	putting two in parallel for each filament connection. not be allowed to exceed 2000 watts. Plate dissipation in
the bias voltage which may be used on the	2000 V	the bias voltage which may be used on the 2000T there is periods of time, such as during tuning procedures.
at plate voltages of [1]	5000 V	at plate voltages of 5000, 6000, and 7a -3 •

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
at plate voltages of [2]	6000 V	at plate voltages of 5000, 6000, and 7a -3 •
at plate voltages of [3]	7 V	at plate voltages of 5000, 6000, and 7a -3 •
at plate voltages of [4]	-3 V	at plate voltages of 5000, 6000, and 7a -3 •
bined grid and bias losses only. The /	1	bined grid and bias losses only. The / 1 A'