



ELECTRONIC TUBE REFERENCE

6448

Power - Beam (NOT sweep) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Extremely high-power beam tube for industrial transmitting, RF, and pulse service, with approximately 30 kV plate capability and extraordinarily high plate-dissipation rating.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	2 V / 1100 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
AMPLIFICATION FACTOR	6
MAXIMUM PLATE VOLTAGE	30000 V
MAXIMUM SCREEN VOLTAGE	2000 V
MAXIMUM PLATE DISSIPATION	75000 W
<i>Published maximum ratings and characteristics promoted directly from the supplied datasheet; additional operating data retained in parameters.</i>	

High-power beam-power tube for RF, pulse, or transmitting service. The supplied datasheet was reviewed for heater/filament data, maximum ratings, operating conditions, capacitances, pulse/RF data, and thermal limits.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage per section (AC or DC)	11.5 mA	Published datasheet value
Grid No.1 to plate	0.1 mA	Published datasheet value
Ceramic Bushing Temperature	150 mA	Published datasheet value
DC PLATE VOLTAGE	7 A	Published datasheet value
DC PLATE-SUPPLY VOLTAGE	8 A	Published datasheet value
DC GRID-No.2 (SCR_EN) VOLTAGE	1 A	Published datasheet value
DC GRID-No.2-SUPPLY VOLTAGE	1.1 A	Published datasheet value
DC PLATE CURRENT	7 mA	Published datasheet value
PLATE INPUT	49 A	Published datasheet value
PLATE DISSIPATION	26 A	Published datasheet value
DC PLATE VOLTAGE	4.5 A	Published datasheet value
DC GRID-No.2 (SCREEN) VOLTAGE	1 A	Published datasheet value
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	300 mA	Published datasheet value
DC PLATE CURRENT	4.5 mA	Published datasheet value
DC GRID-No.1 CURRENT	1 mA	Published datasheet value
PLATE INPUT	22.5 A	Published datasheet value
GRID-No.2 INPUT	400 mA	Published datasheet value
PLATE DISSIPATION	16.5 A	Published datasheet value
CC PLATE VOLTAGE	7 A	Published datasheet value
DC GRID-No.1 (CONTROL-RID) VOLTAGE	-300 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC GRID-No.1 CURRENT	0.5 mA	Published datasheet value
PLATE INPUT	45.5 A	Published datasheet value
GRID-No.2 INPUT	600 mA	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current per section at 1.35 volts – published value 1	1.35 A	Published datasheet value
Current per section at 1.35 volts – published value 2	1000 A	Published datasheet value
Cold resistance per section	0.0002 ohm	Published datasheet value
volts= 3000, grid-No.2 volts= 800, and plate – published value 1	3000	Published datasheet value
volts= 3000, grid-No.2 volts= 800, and plate – published value 2	800	Published datasheet value
Grid No.2 and Cathode (Total)	15000	Published datasheet value
To Grid-No.1 Block – published value 1	1	Published datasheet value
To Grid-No.1 Block – published value 2	0.5	Published datasheet value
To Grid-No.1 Block – published value 3	1	Published datasheet value
To Grid-No.2 Block – published value 1	1.2	Published datasheet value
To Grid-No.2 Block – published value 2	15	Published datasheet value
Outlet Water Temperature (Any outlet)	70 mA	Published datasheet value
DC GRID-No.1 (CONTROL-GRID) CURRENT	0.5 mA	Published datasheet value
GRID-No.2 INPUT (Pedestal Level)	600 mA	Published datasheet value
DC Plate Voltage – published value 1	6000	Published datasheet value
DC Plate Voltage – published value 2	6500	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No.2 Voltage – published value 1	950	Published datasheet value
DC Grid-No.2 Voltage – published value 2	950	Published datasheet value
DC Grid-No.1 Voltage – published value 1	-140	Published datasheet value
DC Grid-No.1 Voltage – published value 2	-140	Published datasheet value
DC Plate Voltage – published value 1	4000	Published datasheet value
DC Plate Voltage – published value 2	4250	Published datasheet value
DC Grid-No.2 Voltages – published value 1	600	Published datasheet value
DC Grid-No.2 Voltages – published value 2	600	Published datasheet value
oC Grid-No.1 Voltage – published value 1	-200	Published datasheet value
oC Grid-No.1 Voltage – published value 2	-200	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 1	210	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 2	210	Published datasheet value
DC Plate Current – published value 1	4.25 A	Published datasheet value
DC Plate Current – published value 2	4 A	Published datasheet value
DC Grid-No.2 Current – published value 1	650 mA	Published datasheet value
DC Grid-No.2 Current – published value 2	600 mA	Published datasheet value
DC Grid-No.1 Current (Approx.) – published value 1	300 mA	Published datasheet value
DC Grid-No.1 Current (Approx.) – published value 2	200 mA	Published datasheet value
Driver Power Output (Approx.)~ – published value 1	700 W	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Driver Power Output (Approx.)~ – published value 2	1000 W	Published datasheet value
Useful Power Output (Approx.) – published value 1	7250 W	Published datasheet value
Useful Power Output (Approx.) – published value 2	4500 W	Published datasheet value
DC PLATE CURRENT	6.5 mA	Published datasheet value
DC Plate Voltage – published value 1	6500	Published datasheet value
DC Plate Voltage – published value 2	6500	Published datasheet value
DC Grid-No.2 Voltage} – published value 1	800	Published datasheet value
DC Grid-No.2 Voltage} – published value 2	800	Published datasheet value
DC Grid-No.1 Voltage}} – published value 1	-140	Published datasheet value
DC Grid-No.1 Voltage}} – published value 2	-140	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 1	160	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 2	160	Published datasheet value
DC Plate Current – published value 1	6 A	Published datasheet value
DC Plate Current – published value 2	6.3 A	Published datasheet value
DC Grid-No.2 Current – published value 1	500 mA	Published datasheet value
DC Grid-No.2 Current – published value 2	4 A	Published datasheet value
DC Grid-No.1 Current (Approx.) – published value 1	200 mA	Published datasheet value
DC Grid-No.1 Current (Approx.) – published value 2	150 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Driver Power Output (Approx.)~ – published value 1	400 W	Published datasheet value
Driver Power Output (Approx.)~ – published value 2	800 W	Published datasheet value
Useful Power Output (Approx.) – published value 1	14000 W	Published datasheet value
Useful Power Output (Approx.) – published value 2	11000 W	Published datasheet value
frequency envelope does not exc eetl 1355 of the card er conditions	1355	Published datasheet value
efficient to prevent the grid- x 0.2 voltage from rising above 1100 volts	1100	Published datasheet value
Filament Current per Section – published value 1	1 A	Published datasheet value
Filament Current per Section – published value 2	900 A	Published datasheet value
Filament Current per Section – published value 3	1100 A	Published datasheet value
Filament Current per Section – published value 1	2 A	Published datasheet value
Filament Current per Section – published value 2	960 A	Published datasheet value
Filament Current per Section – published value 3	1160 A	Published datasheet value
Grid-No.1 Voltage – published value 1	13	Published datasheet value
Grid-No.1 Voltage – published value 2	160	Published datasheet value
Useful Power Output – published value 1	14 W	Published datasheet value
Useful Power Output – published value 2	11000 W	Published datasheet value
Power Gain – published value 1	145	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Gain – published value 2	10	Published datasheet value
note 3: With 2-phase excitation of the filament sections, tic plate voltage – published value 1	3	Published datasheet value
note 3: With 2-phase excitation of the filament sections, tic plate voltage – published value 2	2	Published datasheet value
of 6500 volts, dt grid-No.2 voltage of 800 volts, and do gri – published value 1	6500	Published datasheet value
of 6500 volts, dt grid-No.2 voltage of 800 volts, and do gri – published value 2	800	Published datasheet value
No.i voltage adjusted to give a 0c plate current of 0.5 ampere	500 mA	Published datasheet value
Note 4: With 2-phase excitation of the filament sections. In rf power – published value 1	4	Published datasheet value