



ELECTRONIC TUBE REFERENCE

6806

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

High-power beam-power transmitting tube for RF and pulse service, with multi-kilowatt output capability and published operation extending into the UHF range.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	30 V / 1050 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
AMPLIFICATION FACTOR	10
MAXIMUM PLATE VOLTAGE	9000 V
MAXIMUM SCREEN VOLTAGE	1250 V
MAXIMUM PLATE DISSIPATION	35000 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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LOW DRIVE REQUIREMENTS – published value 1	28 MHz	Published datasheet value
LOW DRIVE REQUIREMENTS – published value 2	550 MHz	Published datasheet value
Filament, 2-Section Multistrand	2	Published datasheet value
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
Starting current per section	1200	Published datasheet value
Cold resistance per section	0.00025 ohm	Published datasheet value
(Approx.) for plate volts = 9300,	9300	Published datasheet value
grid-No.2 volts = 950, and plate	950	Published datasheet value
Grid No.1 to filament and grid No.2	365	Published datasheet value
Plate to filament and grid No.2	30	Published datasheet value
Min. Plate-Water-Column Resistance	4000 V	Published datasheet value
DC Plate Voltage	8000	Published datasheet value
DC Grid-No.2 Voltage	1200	Published datasheet value
Voltage	-115	Published datasheet value
Zero-Signal DC Plate Current	2.5 A	Published datasheet value
Current (Approx.)	150 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current (Approx.)	350 mA	Published datasheet value
Current (Approx.)	0 mA	Published datasheet value
DC Plate Voltage – published value 1	8500	Published datasheet value
DC Plate Voltage – published value 2	8000	Published datasheet value
DC Grid-No.2 Voltage – published value 1	1000	Published datasheet value
DC Grid-No.2 Voltage – published value 2	1000	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 GRID-No.1 CURRENT	1 mA	Published datasheet value
DC Plate Voltage	5000	Published datasheet value
DC Grid-No.2 Voltages	800	Published datasheet value
DC Grid-No.1 Voltage	-180	Published datasheet value
Peak RF Grid-No.1 Voltage	210	Published datasheet value
DC Plate Current	4.25 A	Published datasheet value
DC Grid-No.2 Current (Approx.)	400 mA	Published datasheet value
DC Grid-No.1 Current (Approx.j,	100 mA	Published datasheet value
Driver Power Output (Approx.)	300 W	Published datasheet value
Useful Power Output (Approx.)	10000 W	Published datasheet value
DC Plate Voltage – published value 1	8500	Published datasheet value
DC Plate Voltage – published value 2	7500	Published datasheet value
DC Grid-No.2 Voltaget – published value 1	1000	Published datasheet value
DC Grid-No.2 Voltaget – published value 2	1000	Published datasheet value
DC Grid-No.1 Voltagett – published value 1	-175	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No.1 Voltage – published value 2	-175	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 1	215	Published datasheet value
Peak RF Grid-No.1 Voltage – published value 2	235	Published datasheet value
DC Plate Current – published value 1	6.75 A	Published datasheet value
DC Plate Current – published value 2	6.8 A	Published datasheet value
less than 30 seconds. When the filament voltage is removed, it	30 s	Published datasheet value
Voltage in no[less than 30 seconds	30 s	Published datasheet value
During stand by, the filament may be operated at 1.08 volts	1.08 mA	Published datasheet value
For L00S modulation of plate voltage, until 50% modulation of grid-No.2	50	Published datasheet value
frequency envelope does not exceed 31% of the carrier conditions	31	Published datasheet value
to prevent the grid-No.2 voltage from rising above 1200	1200	Published datasheet value
Filament Current per Section – published value 1	1 A	Published datasheet value
Filament Current per Section – published value 2	950 A	Published datasheet value
Filament Current per Section – published value 3	1050 A	Published datasheet value
Filament Current per Section – published value 1	2 A	Published datasheet value
Filament Current per Section – published value 2	985 A	Published datasheet value
Filament Current per Section – published value 3	1095 A	Published datasheet value
Grid-No.1 Voltage – published value 1	14	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Voltage – published value 2	180	Published datasheet value
Power Gain – published value 1	1	Published datasheet value
Power Gain – published value 2	56	Published datasheet value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage* per section (AC or DC)	1.35	Published datasheet value
Grid No.1 to plate	0.1 mA	Published datasheet value
Through grid-No.1 block – published value 1	0.5 mA	Published datasheet value
Through grid-No.1 block – published value 2	1.2 mA	Published datasheet value
Through grid-No.1 block – published value 3	9 mA	Published datasheet value
Through grid-No.2 block – published value 1	0.5 mA	Published datasheet value
Through grid-No.2 block – published value 2	1.2 mA	Published datasheet value
Through grid-No.2 block – published value 3	17 mA	Published datasheet value
Except Plate Inlet	70 mA	Published datasheet value
Gauge Pressure at Plate Inlet	100 mA	Published datasheet value
Ceramic-Bushing Temperature	150 mA	Published datasheet value
Gutlet-water Temperature (Any outlet)	70 mA	Published datasheet value
DC PLATE VOLTAGE	9 A	Published datasheet value
DC PLATE-SUPPLY VOLTAGE	10 A	Published datasheet value
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	1.25 A	Published datasheet value
DC GRID-No.2 SUPPLY VOLTAGE	1.35 A	Published datasheet value
MAX. -SIGNAL DC PLATE CURRENT	7 mA	Published datasheet value
MAX. -SIGNAL PLATE INPUT	60 A	Published datasheet value
MAX. -SIGNAL GRID-No.2 INPUT	750 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE DISSIPATION	35 A	Published datasheet value
Max.-Signal DC Plate Current	6 A	Published datasheet value
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	1.1 A	Published datasheet value
DC GRID-No.2-SUPPLY VOLTAGE	1.2 A	Published datasheet value
DC PLATE CURRENT	8.25 mA	Published datasheet value
CURRENT	0.5 mA	Published datasheet value
PLATE INPUT	70 A	Published datasheet value
DC PLATE VOLTAGE	5.5 A	Published datasheet value
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	1 A	Published datasheet value
VOLTAGE	-250 mA	Published datasheet value
DC PLATE CURRENT	4.5 mA	Published datasheet value
PLATE INPUT	25 A	Published datasheet value
GRID-No.2 INPUT	500 mA	Published datasheet value
PLATE DISSIPATION	17 A	Published datasheet value
DC GRID-No.2 SUPPLY VOLTAGE	1.2 A	Published datasheet value
DC PLATE CURRENT	7 mA	Published datasheet value
DC GRID-No.1 CURRENT	0.5 mA	Published datasheet value
PLATE INPUT	60 A	Published datasheet value
GRID-No.2 INPUT	750 mA	Published datasheet value
Maximum voltage ratings apply for pressures down to 25 inches of	25	Published datasheet value