



ELECTRONIC TUBE REFERENCE

4634

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

RCA high-power beam-power transmitting tube for RF, pulse, modulation, and related transmitter service, with 600-watt maximum plate dissipation and application-specific operating limits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6 V / 7.6 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Beam Power	
AMPLIFICATION FACTOR	6.6
MAXIMUM PLATE VOLTAGE	5000 V
MAXIMUM SCREEN VOLTAGE	1200 V
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM CATHODE CURRENT	500 mA
<i>Published maximum ratings/general electrical characteristics promoted directly; pulse, RF, capacitance, cooling, and service-specific values retained in TUBE_SECTION_PARAMETER.</i>	

High-power beam power tube for RF, pulse, modulation, or transmitting service. The RCA source was reviewed for heater/filament data, maximum ratings, RF and pulse operating conditions, capacitances, cooling requirements, and application-specific 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
Maximum plate voltage	5000 V	PromotedValue
Maximum screen-grid voltage	1200 V	PromotedValue
Maximum plate dissipation	600 W	PromotedValue
Maximum cathode/plate current	500 mA	PromotedValue
Grid No.t to plate	0.12 mA	Published datasheet value
Plate to cathode	0.011 mA	Published datasheet value
~..~	250 mA	Published datasheet value
Voltagee	7 A	Published datasheet value
DC Plate Voltage	5 A	Published datasheet value
DC Grid-N o.2 Voltage	1.2 A	Published datasheet value
DC Grid-N o.1 Voltage	250 mA	Published datasheet value
Peak Plate Currentf	8 mA	Published datasheet value
Grid-No.2 Input (Average)	20 mA	Published datasheet value
Grid-N o.1 InputlAverage)	8 mA	Published datasheet value
Plate Dissipation (Averagelg	600 mA	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu / amplification factor	6.6	PromotedValue
Heater/filament voltage	6 V	Nominal operating value
Heater/filament current	7.6 A	Nominal operating value
,,","~ – published value 1	6 V	Published datasheet value
,,","~ – published value 2	7.6 V	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum heating time	120	Published datasheet value
Mu-Factor ^b	6.6	Published datasheet value
Grid No.1 to cathode	30 pF	Published datasheet value
Grid No.1 to grid No.2	38 pF	Published datasheet value
Grid No.2 to plate	5.3 pF	Published datasheet value
(Pulse duration 0.1 s)	0.1	Pulse
With rectangular wave shape pulses, duty factor of 0.05 and pulse	0.05	Pulse
DC Plate Voltage	3000 V	Published datasheet value
Instantaneous Peak Plate Voltage	7000 V	Published datasheet value
DC Grid-No.2 Voltage	800 V	Published datasheet value
OC Grid-No.1 Voltage	120 V	Published datasheet value
Peak Positive Grid-No.1 Voltage	25 V	Published datasheet value
Peak Plate Current	8	Published datasheet value
DC Plate Current	0.4	Published datasheet value
DC Grid-No.2 Current	0.012	Published datasheet value
DC Grid-No.1 Current	0.05	Published datasheet value
Load Resistance	225	Published datasheet value
Plate Dissipation (Average)	480	Published datasheet value
Useful DC Power Output at Peak of Pulse	14400	Pulse
^b For plate voltage = 500 V, grid-No.2 voltage = 350 V, and – published value 1	500 V	Published datasheet value
^b For plate voltage = 500 V, grid-No.2 voltage = 350 V, and – published value 2	350 V	Published datasheet value
plate current = 0.24 A	0.24	Published datasheet value
to 0.05; for higher duty factors, the peak plate current must be	0.05	Published datasheet value
PEAK PLATE CURRENT -AMPERES – published value 1	92 A	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PEAK PLATE CURRENT -AMPERES – published value 2	2375 A	Published datasheet value