



ELECTRONIC TUBE REFERENCE

8437

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Forced-air-cooled Cermolox beam-power transmitting tube with integral radiator, designed for high-power UHF radio-frequency service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	8.5 V / 88 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
AMPLIFICATION FACTOR	30
MAXIMUM PLATE VOLTAGE	7000 V
MAXIMUM SCREEN VOLTAGE	1500 V
MAXIMUM PLATE DISSIPATION	10000 W
<i>Electrical section extracted from supplied RCA data sheet.</i>	

Forced-air-cooled Cermolox beam-power transmitting tube with integral radiator for high-power UHF service. The supplied RCA sheet was used for published ratings, characteristics, operating conditions, and capacitances where present.

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	8.5 V	WholeTube
Heater/filament current nominal	88 A	WholeTube
Grid No	1 pF	Published source row
Grid No (value 2)	0.4 pF	Published source row
Grid No	1 pF	Published source row
Grid No (value 2)	86 pF	Published source row
Grid No	2 pF	Published source row
Grid No (value 2)	20 pF	Published source row
Grid No	2 pF	Published source row
Grid No (value 2)	1.5 pF	Published source row
G I -Grid-No	1	Published source row
GZ -Grid-No	2	Published source row
grid No	2	Published source row
filament, and filament)	250 °C	Published source row
Plate-Core Temperature	250 °C	Published source row
temperature to	250 A	Published source row
Published electrical value	1 A	Published source row
Published electrical value (value 2)	1 A	Published source row
Published electrical value (value 3)	84 A	Published source row
Published electrical value (value 4)	92 A	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to filament –	78 pF	Published source row
Grid No.1 to filament – (value 2)	94 pF	Published source row
Plate to filament	23 pF	Published source row
Plate to filament (value 2)	0.07 pF	Published source row
Grid No	2 pF	Published source row
Grid No (value 2)	18 pF	Published source row
Grid No (value 3)	22 pF	Published source row
Grid No	2 pF	Published source row
Grid No (value 2)	3 pF	Published source row
Grid No (value 3)	1.5 pF	Published source row
Published electrical value	3 V	Published source row
Published electrical value (value 2)	1 V	Published source row
Published electrical value (value 3)	4 V	Published source row
Published electrical value (value 4)	125 V	Published source row
Note	1 V	Published source row
Note (value 2)	5 V	Published source row
Note	4 V	Published source row
Note (value 2)	1750 V	Published source row
Note (value 3)	2 V	Published source row
Published electrical value	1200	Published source row
Published electrical value (value 2)	1	Published source row

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
INTEGRAL RADIATOR	10000 W	Published source row
THORIATED-TUNGSTEN MESH FILAMENT AT	400 MHz	Published source row
Voltage (AC or DC)	8.5 V	Published source row
Minimum heating time	15 s	Published source row
Mu-Factor, Grid No	2	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No	1 V	Published source row
=	7000 V	Published source row
= (value 2)	2 V	Published source row
plate, grid-No	2	Published source row
To Plate, Grid-No	2	Published source row
For	100 %	Published source row
Frequency (cps)	60	Published source row
Frequency (cps) (value 2)	60	Published source row
Frequency (cps) (value 3)	400	Published source row
Voltage (v)	208 V	Published source row
Voltage (v) (value 2)	115 V	Published source row
Voltage (v) (value 3)	115 V	Published source row
For	80	Published source row
Frequency (cps)	60	Published source row
Frequency (cps) (value 2)	60	Published source row
Frequency (cps) (value 3)	400	Published source row
Frequency (cps) (value 4)	400	Published source row
Voltage (v)	208 V	Published source row
Voltage (v) (value 2)	115 V	Published source row
Voltage (v) (value 3)	115 V	Published source row
Voltage (v) (value 4)	115 V	Published source row
For	60 %	Published source row
Frequency (cps)	60	Published source row
Frequency (cps) (value 2)	60	Published source row
Frequency (cps) (value 3)	400	Published source row
Frequency (cps) (value 4)	400	Published source row
Voltage (v)	208 V	Published source row
Voltage (v) (value 2)	115 V	Published source row
Voltage (v) (value 3)	115 V	Published source row
Voltage (v) (value 4)	115 V	Published source row
DC Plate Voltage	700 V	Published source row
DC Grid-No	2 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No (value 2)	1500 V	Published source row
DC Grid-No.1 Voltage –	150 V	Published source row
DC Plate Current	4 A	Published source row
DC Grid-No	1 A	Published source row
DC Grid-No (value 2)	1.2 A	Published source row
Plate Dissipation	10000 W	Published source row
DC Plate Voltage	6500 V	Published source row
Published electrical value	1 V	Published source row
Published electrical value (value 2)	2 V	Published source row
Published electrical value (value 3)	1200 V	Published source row
DC Grid-No	1 V	Published source row
DC Grid-No (value 2)	30 V	Published source row
DC Plate Current	3.5 A	Published source row
DC Grid-No	2 A	Published source row
DC Grid-No (value 2)	50 mA	Published source row
DC Grid-No.1 Current	530 mA	Published source row
Driver Power Outputf (Approx)	600 W	Published source row
Output-Circuit Efficiency	78 %	Published source row
Useful Power Output	10000 W	Published source row
Grid-No.1-Circuit Resistance	5000 ohm	Published source row
Grid-No	2	Published source row
Grid-No (value 2)	9	Published source row

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