

ELECTRONIC TUBE REFERENCE

4636

Power - Pentode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Liquid-cooled high-power pentode for UHF television transmitting service, rated around 1 kW plate dissipation and approximately 300 W output at 890 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 3.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	2200000 Ω
TRANSCONDUCTANCE	0.0023 S
AMPLIFICATION FACTOR	12
MAXIMUM PLATE VOLTAGE	2200 V
MAXIMUM SCREEN VOLTAGE	400 V
MAXIMUM PLATE DISSIPATION	1000 W
MAXIMUM SCREEN DISSIPATION	0.3 W
MAXIMUM CATHODE CURRENT	600 mA
Published maximum ratings/general electrical characteristics promoted directly; pulse, RF, capacitance, cooling, and service-specific values retained in TUBE_SECTION_PARAMETER.	

Indirectly heated pentode for preamplifier service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 6 of 7

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

1971 RCA HB3 BINDER 6 OF 7

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	2200 V	PromotedValue
Maximum screen-grid voltage	400 V	PromotedValue
Maximum plate dissipation	1000 W	PromotedValue
Maximum cathode/plate current	600 mA	PromotedValue
Terminal Temperature	250 mA	Published datasheet value
Cathode-Heater Flange	125 mA	Published datasheet value
Plate Seal Temperature	250 mA	Published datasheet value
DC Plate Current (Class A Service)	600 mA	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu / amplification factor	12	PromotedValue
Heater/filament voltage	6.3 V	Nominal operating value
Heater/filament current	3.5 A	Nominal operating value
Liquid Cooled	410 W	Published datasheet value
300 Watts UHF TV Output at 890 MHz – published value 1	300 W	Published datasheet value
300 Watts UHF TV Output at 890 MHz – published value 2	890 W	Published datasheet value
Voltage (ac or dc)	6.3 V	Published datasheet value
Current at 6.3 volts – published value 1	6.3 V	Published datasheet value
Current at 6.3 volts – published value 2	3.5 V	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum heating time	60	Published datasheet value
Mu-F actor, (grid No.2 to grid No.1)	12	Published datasheet value
DC Plate Voltage	2200 V	Published datasheet value
DC Grid No.2 Voltage	400 V	Published datasheet value
DC Grid No.1 Voltage	100 V	Published datasheet value
Plate Dissipation	1000	Published datasheet value
2 No.6-32 STUDS) – published value 1	2	Published datasheet value
2 No.6-32 STUDS) – published value 2	32	Published datasheet value



SOURCE OPERATING CONDITIONS

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1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	100 V	—
Plate current	3 mA	—
Screen current	1.2 mA	—
Transconductance	2.3 mA/V	—
Plate resistance	2.2 Mohm	—