



ELECTRONIC TUBE REFERENCE

816

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Mercury-vapor half-wave rectifier for transmitting and industrial supplies. Its gas-assisted conduction provides low forward voltage with useful current at multi-kilovolt potentials.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4P	BASE PINS	4
NOMINAL HEATER	2.5 V / 2 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	7500 V
NOMINAL OUTPUT CURRENT	125 mA
PEAK FORWARD CURRENT	500 mA
FORWARD VOLTAGE DROP	15 V
WARM-UP TIME	10 s
Electrical section extracted from supplied RCA data sheet.	

Half-wave mercury-vapor rectifier for transmitting and industrial power supplies, rated to 7.5 kV peak inverse voltage.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 General Electric Transmitting Types

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

1950 GENERAL ELECTRIC TRANSMITTING TYPES

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	2.5 V	—
HeaterOrFilamentCurrent	2 A	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 RCA Transmitting Tubes

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

1956 RCA TRANSMITTING TUBES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	7500 V	—
Nominal Output Current	125 mA	—
Peak Forward Current	500 mA	—
Peak Inverse Anode Voltage	7500 V	—
Peak Anode Current	500 mA	—
Average Anode Current	125 mA	—
Fault Current	5 A	Maximum duration 0.1 second

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward Voltage Drop	15 V	—
Warmup Time	10 s	—
Tube Voltage Drop	15 V	Approximate
Filament Warmup Before Anode Voltage	10 s	Minimum



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 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	2.5 V	WholeTube
Heater/filament current nominal	2 A	WholeTube

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage	2.25 V	Published source row
Voltage (value 2)	2.5 V	Published source row
Voltage (value 3)	2.75 V	Published source row
Current at	2.5 V	Published source row
Current at (value 2)	2 V	Published source row
Current at (value 3)	2.2 V	Published source row
voltage	10 s	Published source row
Maximum Ratings, Absolute Values: For su cc bly frequency of	6	Published source row
PEAK INVERSE ANODE VOLTAGE	7500 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical value	816	Published source row
Published electrical value	0 V	Published source row
Published electrical value (value 2)	7500 V	Published source row
mercury-temperature range of	20	Published source row
mercury-temperature range of (value 2)	60	Published source row
Peak inverse plate voltage	7500 V	Promoted field corroboration
Verified Peak inverse plate voltage	7500 V	Verified from supplied datasheet rating/characteristic table
Verified Rectifier average output current	125 mA	Verified from supplied datasheet rating/characteristic table
Verified Rectifier peak forward current	500 mA	Verified from supplied datasheet rating/characteristic table

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