



ELECTRONIC TUBE REFERENCE

83V

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Indirectly heated full-wave high-vacuum rectifier with relatively low internal voltage drop. Its five-volt heater-cathode construction provides moderate-current conventional power-supply service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4AD	BASE PINS	4
NOMINAL HEATER	5 V / 2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	1400 V
NOMINAL OUTPUT CURRENT	175 mA
PEAK FORWARD CURRENT	525 mA
FORWARD VOLTAGE DROP	23 V
Representative row for identical repeated sections.	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	1400 V
NOMINAL OUTPUT CURRENT	175 mA
PEAK FORWARD CURRENT	525 mA
FORWARD VOLTAGE DROP	23 V
Second physical rectifier section; promoted electrical properties populated from identical section.	

83V is a Rectifier device. Indirectly heated full-wave high-vacuum rectifier with low internal voltage drop. The supplied sheet explicitly states that 5V4G and 83V have identical ratings and electrical characteristics.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS AC voltage per plate maximum	400 V	FullWave
Peak inverse voltage maximum	1100 V	FullWave
Peak current per plate maximum	700 mA	FullWave
DC output current maximum	200 mA	FullWave

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average tube voltage drop	25 V	At200mAOutputCurrentPerPlate



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaTER VoLTAGE (A. C)evvennnn i,	5 V	HeaTER VoLTAGE (A. C)evvennnn i, 5.0 Volts
HEATER CURRENT .+t invtuntnnnonneennnnnnnn,	2 A	HEATER CURRENT .+t invtuntnnnonneennnnnnnn, 2.0 Amperes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
A-C PLATE VoLTAGE PER PrAtE (RMS)	400 V	A-C PLATE VoLTAGE PER PrAtE (RMS)..... 400 max. Volts
PEAK INVERSE VOLTAGE.....e.vouvuvunennnnnnnn	1100 V	PEAK INVERSE VOLTAGE.....e.vouvuvunennnnnnnn. 1100 max. Volts
D-C OUTPUT CURRENT. . . .o vnvrvnnnnnonnnennnn	200 mA	D-C OUTPUT CURRENT. . . .o vnvrvnnnnnonnnennnn.. 200 max. Milliamperes
transformer. The voltage applied to the heater should be the rated value of	5 V	transformer. The voltage applied to the heater should be the rated value of 5.0
provided the maximum voltages and currents	5 V	provided the maximum voltages and currents 2 5 Pare

1940 RCA

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaTER VoLTAGE (A. C)evvennnn i,	5 V	HeaTER VoLTAGE (A. C)evvennnn i, 5.0 Volts
HEATER CURRENT .+t invtuntnnnnonneennnnnnnnnn,	2 A	HEATER CURRENT .+t invtuntnnnnonneennnnnnnnnn, 2.0 Amperes



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	1400 V	—
Nominal DC Output Current	175 mA	—
AC Voltage per Plate	375 V	CapacitorInputFilter
DC Output Current	175 mA	CapacitorInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC Voltage per Plate	500 V	ChokeInputFilter
DC Output Current	175 mA	ChokeInputFilter

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward Voltage Drop	25 V	—

TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	5 V	Published heater/filament rating
Heater/filament current	2 A	Published heater/filament rating
Tube voltage drop	25 V	At 175 mA DC

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current	175 mA	RectifierService
Peak inverse voltage	1400 V	RectifierService
RMS supply voltage per plate	375 V	RectifierService
Peak current per plate	525 mA	RectifierService

TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4
Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
THE TUNG-SOL	83 V	THE TUNG-SOL 5V4G AND 83V ARE POWER RECTIFIERS WITH LOW INTERNAL VOLTAGE
MAXIMUM STEADY-STATE PEAK PLATE CURRENT PER PLATE	525 mA	Maximum Ratings MAXIMUM STEADY-STATE PEAK PLATE CURRENT PER PLATE 525 MA.
Peak inverse voltage	1400 V	—
Steady-state peak plate current per plate	525 mA	—
AC plate voltage per plate	375 V	CapacitorInputFilter
DC output current	175 mA	CapacitorInputFilter
Plate-supply impedance per plate	65 ohm	CapacitorInputFilter
AC plate voltage per plate	500 V	ChokeInputFilter
DC output current	175 mA	ChokeInputFilter
Input choke	4 H	ChokeInputFilter

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC PLATE VOLTAGE PER PLATE (RMS~""X•	375 V	CapacitorInputFilter AC PLATE VOLTAGE PER PLATE (RMS~""X• 375 VOLTS
DC OUTPUT CURRENT N" %'	175 mA	CapacitorInputFilter DC OUTPUT CURRENT N" %' 175 MA.
TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE PER PLATE NINA	65 ohm	CapacitorInputFilter TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE PER PLATE NINA 65 OHMS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC OUTPUT CURRENT N" x •	175 mA	ChokeInputFilter DC OUTPUT CURRENT N" x • 175 MA.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
T	23 V	ChokeInputFilter T 118E VOLTAGE DROP 23 VOLTS
PLATE AT Z	75 mA	ChokeInputFilter PLATE AT Z75 MA. PER PLATE
CHOKE INPUT. L	20 H	ChokeInputFilter =CHOKE INPUT. L = 20 h _ Et = 5.0 Volts
CHOKE INPUT. L	5 V	ChokeInputFilter =CHOKE INPUT. L = 20 h _ Et = 5.0 Volts
Tube voltage drop	23 V	At 175mA per plate