

ELECTRONIC TUBE REFERENCE

5AS4A

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
RECTIFIER-RECTIFIER

Directly heated full-wave vacuum rectifier with two identical diode systems. Its heavy five-volt filament and substantial current capability suit high-current conventional power supplies.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5T	BASE PINS	5
NOMINAL HEATER	5 V / 3 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

5T - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – F	–	F – Filament	CONNECTED
PIN4 – P1	A	P – Plate (Anode)	CONNECTED
PIN6 – P2	A	P – Plate (Anode)	CONNECTED
PIN8 – F	–	F – Filament	CONNECTED

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	1550 V
NOMINAL OUTPUT CURRENT	300 mA
PEAK FORWARD CURRENT	1 A
FORWARD VOLTAGE DROP	54 V
<i>Representative row for two identical full-wave rectifier plates.</i>	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	1550 V
NOMINAL OUTPUT CURRENT	300 mA
PEAK FORWARD CURRENT	1 A
FORWARD VOLTAGE DROP	54 V
<i>Second physical rectifier section; electrical properties populated from applicable published ratings.</i>	

Full-wave vacuum rectifier with two identical diode systems and directly heated filament.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Fitament Voltage, ACor DC..... 5.0 Volts	5 V	Fitament Voltage, ACor DC..... .. 5.0 Volts
Filament Current..... 3.0 Amperes	3 A	Filament Current..... .. 3.0 Amperes
Effective Plate-Supply Resistance Each Plate. . 21 67 Ohms	67 Ohms	Effective Plate-Supply Resistance Each Plate. . 21 67 Ohms
DC Output Current. 300 275 Ma	275 Ma	DC Output Current. 300 275 Ma
AC Plate Supply Voltage Each Plate, RMSϕ. 550 Volts	550 V	AC Plate Supply Voltage Each Plate, RMSϕ. 550 Volts

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Plate Voltage. 1550 Volts Max.	1550 V	Peak Inverse Plate Voltage. 1550 Volts Max.



1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC plate-to-plate supply voltage RMS	600 V	CapacitorInputFilter
Filter input capacitor	40 uF	CapacitorInputFilter
DC output voltage at filter input	290 V	CapacitorInputFilter



SOURCE DATA APPENDIX

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage maximum	1550 V	—
AC plate supply voltage per plate	350 V RMS	CapacitorInputFilter
Input capacitor	40 uF	CapacitorInputFilter
DC output current	350 mA	CapacitorInputFilter
DC output voltage at filter input	360 V	CapacitorInputFilter
AC plate supply voltage per plate	550 V RMS	ChokeInputFilter
Input choke	10 H	ChokeInputFilter
DC output current	325 mA	ChokeInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output voltage at filter input	480 V	ChokeInputFilter

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	5 V	—
Heater current	3 A	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Full-wave power-supply rectifier	—

1965 WESTINGHOUSE DATA BOOK

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage maximum	1550 V	—
AC plate supply voltage per plate	350 V RMS	CapacitorInputFilter
Input capacitor	40 uF	CapacitorInputFilter
DC output current	350 mA	CapacitorInputFilter
DC output voltage at filter input	360 V	CapacitorInputFilter
AC plate supply voltage per plate	550 V RMS	ChokeInputFilter

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	5 V	—
Heater current	3 A	—



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
FILAMENT VOLTAGE	5 V	Maximum Ratings FILAMENT VOLTAGE 5 VOLTS
MAXIMUM AC PLATE SUPPLY VOLTAGE (RMSJ PER PLATE	550 V	Maximum Ratings MAXIMUM AC PLATE SUPPLY VOLTAGE (RMSJ PER PLATE 550 VOLT
FILAMENT CURRENT	3 A	Typical Operating Conditions FILAMENT CURRENT 3 3 AMP.
TOTAL EFFECT. PLATE SUPPLY IMPEDANCE(PER PLATE)	7 ohm	Typical Operating Conditions TOTAL EFFECT. PLATE SUPPLY IMPEDANCE(PER PLATE) 2Z G7 OHMS
DC OUTPUT CURRENT	275 mA	Typical Operating Conditions DC OUTPUT CURRENT 300 275 MA.
Current per Plate of	1 A	Typical Operating Conditions Current per Plate of 1.0 Amp.
MAX. HOT SWITCHING CURRENT	4.6 A	Typical Operating Conditions MAX. HOT SWITCHING CURRENT = 4.6 AMP.

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FILAMENT VOLTAGE	5 V	Maximum Ratings FILAMENT VOLTAGE 5 VOLTS
MAXIMUM AC PLATE SUPPLY VOLTAGE (RMSJ PER PLATE	550 V	Maximum Ratings MAXIMUM AC PLATE SUPPLY VOLTAGE (RMSJ PER PLATE 550 VOLT



1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7
Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC plate supply voltage per plate	300 V	CapacitorInputFilter
Filter input capacitor	40 uF	CapacitorInputFilter
Effective plate supply resistance per plate	21 ohm	CapacitorInputFilter
DC output current	300 mA	CapacitorInputFilter
DC output voltage	290 V	CapacitorInputFilter
AC plate supply voltage per plate	450 V	CapacitorInputFilter
Effective plate supply resistance per plate	67 ohm	CapacitorInputFilter
DC output current	275 mA	CapacitorInputFilter
DC output voltage	460 V	CapacitorInputFilter
AC plate supply voltage per plate	550 V	ChokeInputFilter
Filter input choke	10 H	ChokeInputFilter
DC output current	275 mA	ChokeInputFilter
DC output voltage	420 V	ChokeInputFilter