

5U4GB

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
RECTIFIER-RECTIFIER

Glass-octal directly heated full-wave rectifier widely used in radio and television power supplies with high DC requirements, combining substantial inverse-voltage and peak-current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5T	BASE PINS	8
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	275 mA
PEAK FORWARD CURRENT	1 A
FORWARD VOLTAGE DROP	50 V
Representative row for two rectifier diode sections sharing the published cathode/filament system.	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	1550 V
NOMINAL OUTPUT CURRENT	275 mA
PEAK FORWARD CURRENT	1 A
FORWARD VOLTAGE DROP	50 V
Second physical rectifier section; promoted electrical properties populated from identical section.	

Glass octal type used in power supplies of radio and Nc - color and black-and-white television receivers having J2Vtfd > high dc requirements. Outlines section, 19E; requires (J octal socket. This type may be supplied with pins 3, F (E^--^/\ /J)^ 5, and 7 omitted. Vertical mounting is preferred, but \y-tt^ horizontal mounting is permissible if pins 2 and 4 are in vertical plane. The coated filament is designed to ^ 5T operate from the ac line through a step-down transformer. The voltage at the filament terminals should be 5 volts at an average line voltage of 117 volts. It is especially important that this tube, like other power-handling tubes, be adequately ventilated. For discussion of Rating Chart and Opera- tion Characteristics, refer to Interpretation of Tube Data.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament/heater voltage	5 V	Published condensed-characteristics chart
Filament/heater current	3 A	Published condensed-characteristics chart
DC output current maximum	275 mA	FullWave
Peak inverse voltage maximum	1550 V	FullWave
RMS supply voltage per plate maximum	450 V	FullWave
Peak current per plate maximum	1000 mA	FullWave

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop	50 V	At 275 mA DC



SOURCE OPERATING CONDITIONS

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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
Service	High-output-current television power supply —	



SOURCE OPERATING CONDITIONS

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1965 Westinghouse Data Book

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1965 WESTINGHOUSE DATA BOOK

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage maximum	1550 V	—
AC plate supply voltage per plate	300 V RMS	CapacitorInputFilter
Input capacitor	40 uF	CapacitorInputFilter
DC output current	300 mA	CapacitorInputFilter
DC output voltage at filter input	290 V	CapacitorInputFilter
AC plate supply voltage per plate	450 V RMS	CapacitorInputFilter
Input capacitor	40 uF	CapacitorInputFilter
DC output current	275 mA	CapacitorInputFilter
DC output voltage at filter input	460 V	CapacitorInputFilter
AC plate supply voltage per plate	550 V RMS	ChokeInputFilter
Input choke	10 H	ChokeInputFilter
DC output current	275 mA	ChokeInputFilter
DC output voltage at filter input	420 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	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

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OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse plate voltage	1550 V	—
Maximum RMS AC plate supply voltage per plate	550 V RMS	—
Maximum steady-state peak plate current per plate	1 A	—
Maximum transient peak plate current per plate	4.6 A	—
AC plate supply voltage per plate	300 V RMS	CapacitorInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filter input capacitance	40 uF	CapacitorInputFilter
DC output current	300 mA	CapacitorInputFilter; 300V AC
DC output voltage	290 V	CapacitorInputFilter; 300V AC
AC plate supply voltage per plate	450 V RMS	CapacitorInputFilter
DC output current	275 mA	CapacitorInputFilter; 450V AC
DC output voltage	460 V	CapacitorInputFilter; 450V AC
Filter input choke	10 H	ChokeInputFilter
DC output current	275 mA	ChokeInputFilter
DC output voltage	420 V	ChokeInputFilter

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop at 225 mA per plate	44 V	—
Tube voltage drop at 275 mA per plate	50 V	—



SOURCE OPERATING CONDITIONS

1968 General Electric Co

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1968 GENERAL ELECTRIC CO

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	5 V	—
HeaterOrFilamentCurrentNominal	3 A	—
Peak Inverse Plate Voltage	1550 V	Published datasheet table
SteadyStatePeakPlateCurrentPerPlate	1000 mA	Published datasheet table
DCOutputCurrentSeeRatingChartIf80	80	Published datasheet table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ACPlateSupplyVoltagePerPlateRMSValue1	300 V	Published datasheet table
ACPlateSupplyVoltagePerPlateRMSValue2	450 V	Published datasheet table
ACPlateSupplyVoltagePerPlateRMSValue3	4 V	Published datasheet table

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FilterInputCapacitorValue1	40	Published datasheet table
FilterInputCapacitorValue2	40	Published datasheet table
FilterInputCapacitorValue3	4	Published datasheet table
TotalPlateSupplyResistancePerPlateValue1	21 0hm	Published datasheet table
TotalPlateSupplyResistancePerPlateValue2	67 0hm	Published datasheet table
DCOutputCurrentValue1	300 mA	Published datasheet table
DCOutputCurrentValue2	275 mA	Published datasheet table
DCOutputVoltageAtFilterInputValue1	290 V	Published datasheet table
DCOutputVoltageAtFilterInputValue2	460 V	Published datasheet table
ACPlateSupplyVoltagePerPlateRMS	550 V	Published datasheet table
Filter Input Choke	10 H	Published datasheet table
DC Output Current	275 mA	Published datasheet table
DC Output Voltage At Filter Input	440 V	Published datasheet table
1TheMaximumRatingsForACPlateSupplyVoltageAndDCOutputCurrentAreInterrelatedAndAreAlsoDependentOn	1	Published datasheet table
E100NNCAPACITORORAnZINPUTQQ	100	Published datasheet table
PLATECURRENTOF46AMPERESMAXIHUM	4.6 A	Published datasheet table
100TRANSIENTPEAKPLATECURRENTISNEVERValue1	100	Published datasheet table
100TRANSIENTPEAKPLATECURRENTISNEVERValue2	1	Published datasheet table

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	5 V	—
HeaterOrFilamentCurrentNominal	3 A	—
Peak Inverse Plate Voltage	1550 V	Published datasheet table
SteadyStatePeakPlateCurrentPerPlate	1000 mA	Published datasheet table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ACPlateSupplyVoltagePerPlateRMSValue1	300 V	Published datasheet table
ACPlateSupplyVoltagePerPlateRMSValue2	450 V	Published datasheet table



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1975 RCA RC30

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TYPE	5	Published value from supplied target entry

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
the filament terminals should be	117 volts	Published value from supplied target entry
Peak Inverse Plate Voltage	1650 volts	Published value from supplied target entry
Peak Plate Current (Per Plate)	1 ampere	Published value from supplied target entry
AC Plate-to-Plate Supply Voltage (rms)	1100 volts	Published value from supplied target entry
At half-load current of <	460 mA	Published value from supplied target entry
Half-load to full-load current	50 volts	Published value from supplied target entry
At half-load current	365 volts	Published value from supplied target entry
Half-load to full-load current	16 volts	Published value from supplied target entry

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filter-Input Capacitor*	40	Published value from supplied target entry
INDUCTANCE CAPACITOR (C> INPUT TO FILTER	40	Published value from supplied target entry

SOURCE OPERATING CONDITIONS

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2026 JJ Electronic

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

2026 JJ ELECTRONIC

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Plate Current	1 A	CapacitorInputFilter