

ELECTRONIC TUBE REFERENCE

5R4GY

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Directly heated full-wave high-vacuum rectifier for AC-operated equipment requiring substantial high-voltage DC output. It provides approximately 250 mA output with high peak inverse-voltage capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5T	BASE PINS	8
NOMINAL HEATER	5 V / 2 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	2800 V
NOMINAL OUTPUT CURRENT	250 mA
PEAK FORWARD CURRENT	650 mA
FORWARD VOLTAGE DROP	67 V
<i>Published full-wave rectifier ratings promoted from the printed chart; supply-voltage and voltage-drop test conditions retained as parameters.</i>	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	2800 V
NOMINAL OUTPUT CURRENT	250 mA
PEAK FORWARD CURRENT	650 mA
FORWARD VOLTAGE DROP	67 V
<i>Second physical rectifier section; promoted electrical properties populated from identical section.</i>	

5R4GY is a Rectifier device. Full-wave power rectifier for AC-operated equipment requiring substantial DC output current.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	2800 V	—
Peak Current per Anode	650 mA	—
Rectified Current	250 mA	—
RMS Input per Anode	1000 V	—
RMS Input per Anode	750 V	CapacitorInputFilter
Rectified Current	250 mA	CapacitorInputFilter
Reservoir Capacitor	4 uF	CapacitorInputFilter
RMS Input per Anode	850 V	ChokeInputFilter
Rectified Current	250 mA	ChokeInputFilter
Input Choke Inductance	5 H	ChokeInputFilter



SOURCE OPERATING CONDITIONS

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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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	5 V	—
HeaterOrFilamentCurrent	2 A	—



SOURCE OPERATING CONDITIONS

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1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS Input per Anode	750 V	CapacitorInputFilter
Reservoir Capacitance	4 uF	CapacitorInputFilter
RMS Input per Anode	1000 V	ChokeInputFilter
Input Choke Inductance	5 H	ChokeInputFilter
Rectified Current	250 mA	—



SOURCE OPERATING CONDITIONS

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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	2 A	Published condensed-characteristics chart
DC output current maximum	250 mA	FullWave
Peak inverse voltage maximum	2800 V	FullWave
RMS supply voltage per plate maximum	750 V	FullWave

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak current per plate maximum	650 mA	FullWave

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop	67 V	At 250 mA DC


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195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage maximum	2800 V	FullWave
Peak current per plate maximum	650 mA	FullWave
DC output current maximum	175 mA	FullWave


SOURCE DATA APPENDIX

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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
Heater voltage	5 V	—
Heater current	2 A	—

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1963 Ferranti

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

1963 FERRANTI

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	5 V	—
HeaterOrFilamentCurrent	2 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakAnodeCurrentPerAnodeMaximum	650 mA	—
PeakInverseVoltageMaximum	2100 V	RectifiedCurrent=250mA
PeakInverseVoltageMaximum	2400 V	RectifiedCurrent=175mA
PeakInverseVoltageMaximum	2800 V	RectifiedCurrent=150mA
DCOutputCurrentMaximum	250 mA	CapacitorInputFilter;PIV=2100V
DCOutputCurrentMaximum	175 mA	CapacitorInputFilter;PIV=2400V
DCOutputCurrentMaximum	150 mA	CapacitorInputFilter;PIV=2800V
DCOutputCurrentMaximum	250 mA	ChokeInputFilter;PIV=2100V
DCOutputCurrentMaximum	250 mA	ChokeInputFilter;PIV=2400V
DCOutputCurrentMaximum	175 mA	ChokeInputFilter;PIV=2800V
MinimumChokeInductance	5 H	PIV=2100V
MinimumChokeInductance	5 H	PIV=2400V
MinimumChokeInductance	10 H	PIV=2800V
RMSInputVoltagePerAnode	750 V	CapacitorInputFilter
RMSInputVoltagePerAnode	850 V	CapacitorInputFilter
RMSInputVoltagePerAnode	1000 V	CapacitorInputFilter
SupplyImpedanceMinimum	250 ohm	CapacitorInputFilter;RMSInput=750V
SupplyImpedanceMinimum	500 ohm	CapacitorInputFilter;RMSInput=850V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
SupplyImpedanceMinimum	575 ohm	CapacitorInputFilter;RMSInput=1000V
Reservoir Capacitance	4 uF	CapacitorInputFilter
RMSInputVoltagePerAnode	850 V	ChokeInputFilter
RMSInputVoltagePerAnode	1000 V	ChokeInputFilter
DC Output Current	250 mA	ChokeInputFilter;RMSInput=850V
DC Output Current	175 mA	ChokeInputFilter;RMSInput=1000V


SOURCE DATA APPENDIX

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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
Maximum peak inverse voltage	2800 V	—
Maximum DC output current	250 mA	FullWave
Maximum steady-state peak plate current per plate	650 mA	EachPlate
AC plate voltage per plate	700 V RMS	CapacitorInputFilter; 2100V PIV rating condition
DC output current	250 mA	CapacitorInputFilter; 2100V PIV rating condition
Effective plate supply resistance per plate	125 ohm	CapacitorInputFilter; 2100V PIV rating condition
Filter input capacitance	4 uF	CapacitorInputFilter; 2100V PIV rating condition
DC output voltage	700 V	CapacitorInputFilter; 2100V PIV rating condition
AC plate voltage per plate	750 V RMS	ChokeInputFilter; 2400V PIV rating condition
DC output current	250 mA	ChokeInputFilter; 2400V PIV rating condition
Filter input choke	5 H	ChokeInputFilter; 2400V PIV rating condition
DC output voltage	550 V	ChokeInputFilter; 2400V PIV rating condition

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC plate voltage per plate	950 V RMS	ChokeInputFilter; 2800V PIV rating condition
DC output current	175 mA	ChokeInputFilter; 2800V PIV rating condition
Filter input choke	10 H	ChokeInputFilter; 2800V PIV rating condition
DC output voltage	750 V	ChokeInputFilter; 2800V PIV rating condition

TUBE TINKER

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and their source documents.

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