



ELECTRONIC TUBE REFERENCE

35W4

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Indirectly heated half-wave rectifier for 150 mA series-heater AC/DC receiver supplies, with a heater tap for a dial lamp. Its compact miniature construction became common in transformerless radios.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7-pin miniature	BASE PINS	7
NOMINAL HEATER	35 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	360 V
NOMINAL OUTPUT CURRENT	110 mA
PEAK FORWARD CURRENT	660 mA
FORWARD VOLTAGE DROP	15 V
MAXIMUM HEATER-CATHODE VOLTAGE	330 V
WARM-UP TIME	20 s
<i>Output current maximum without panel lamp.</i>	

150 mA series-heater half-wave rectifier for AC/DC receiver power supplies, with provision for a dial lamp.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 maximum	240 V	—
Reservoir capacitance maximum	40 uF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
DC Output Current	100 mA	HalfWave



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	35 V	—
Heater Current	150 mA	—
PanelLampTapPresent	1 boolean	—
Panel Lamp Section Voltage	7.5 V	NoLamp
Panel Lamp Section Voltage	5.5 V	WithLamp

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakInverseVoltageMaximum	330 V	—
PeakPlateCurrentMaximum	600 mA	—
DCOutputCurrentMaximum	100 mA	—
HeaterCathodeVoltageMaximum	330 V	—
Reservoir Capacitance	40 uF	CapacitorInputFilter
RMSInputVoltage	117 V	HalfWaveRectifier



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 3 of 4

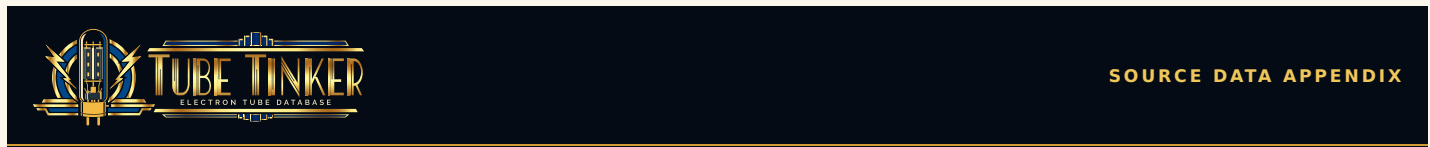
Published test conditions and operating points. Values on this page are preserved as reported by this source.

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RectifierMaximumPeakInverseVoltage	360 V	Published datasheet value
RectifierNominalOutputCurrent	110 mA	Published datasheet value
RectifierPeakForwardCurrent	660 mA	Published datasheet value
RectifierForwardVoltageDrop	15 V	Published datasheet value
Heater Voltage	35 V	Nominal heater rating
Heater Current	150 mA	Nominal heater rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DCOutputCurrentWithPanelLampNoShunt	66 mA	PanelLamp
DCOutputCurrentWithPanelLampShunt	100 mA	PanelLamp
PanelLampHeaterSectionVoltage	7.5 V	WithoutPanelLamp
PanelLampHeaterSectionVoltage	5.5 V	WithPanelLamp



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Mazda Belvu

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

1968 MAZDA BELVU

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	35 V	Published nominal value
Heater or filament current	150 mA	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filter input capacitance	40 uF	Capacitor-input filter
Maximum rectified current	100 mA	Without dial lamp



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	330 V	—
DC Output Current	100 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Panel-Lamp Heater Section Voltage	7.5 V	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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
Entire Heater (pins 3 and 4) 35	32 V	Published in approved 35W4 target datasheet entry; Section1
Panel Lamp Section (pins 4 and 6) 7.5	5.5 V	Published in approved 35W4 target datasheet entry; Section1
Between Pins 3 and 6	150 mA	Published in approved 35W4 target datasheet entry; Section1
Peak Inverse Plate Voltage	360 V	Published in approved 35W4 target datasheet entry; Section1
Peak Plate Current	660 mA	Published in approved 35W4 target datasheet entry; Section1
Panel tLamp t >	66 mA	Published in approved 35W4 target datasheet entry; Section1
{ shl)ntinK Res stor j	100 mA	Published in approved 35W4 target datasheet entry; Section1
Without Panel Lamp	110 mA	Published in approved 35W4 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC Plate-Supply Voltage (rms) 117 117 117	117 V	Published in approved 35W4 target datasheet entry; Section1
Minimum Total Effective Plate-Supply Impedance 15 15 15	15 Ω	Published in approved 35W4 target datasheet entry; Section1
Panel-Lamp Shunting Resistor 300 150	100 Ω	Published in approved 35W4 target datasheet entry; Section1
Average Output Current 60 70 80	90 mA	Published in approved 35W4 target datasheet entry; Section1
AC Plate-Supply Voltage (rms)	117 V	Published in approved 35W4 target datasheet entry; Section1
Minimum Total Effective Plate-Supply Impedance	15 Ω	Published in approved 35W4 target datasheet entry; Section1
Average Output Current	100 mA	Published in approved 35W4 target datasheet entry; Section1
At half-load current (	50 mA	Published in approved 35W4 target datasheet entry; Section1
At half-load current (50 mA)	135 V	Published in approved 35W4 target datasheet entry; Section1
At full-load current (	100 mA	Published in approved 35W4 target datasheet entry; Section1
At full-load current (100 mA)	120 V	Published in approved 35W4 target datasheet entry; Section1
Half-load to full-load current	15 V	Published in approved 35W4 target datasheet entry; Section1
f	70 mA	Published in approved 35W4 target datasheet entry; Section1
f 70 mA	800 Ω	Published in approved 35W4 target datasheet entry; Section1
For dc output current of I	80 mA	Published in approved 35W4 target datasheet entry; Section1
For dc output current of I 80 mA	400 Ω	Published in approved 35W4 target datasheet entry; Section1
L	90 mA	Published in approved 35W4 target datasheet entry; Section1
L 90 mA	250 Ω	Published in approved 35W4 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
E _f =	35 V	Published in approved 35W4 target datasheet entry; Section1
IMPEDANCE =	5 Ω	Published in approved 35W4 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
C = CAPACITOR INPUT TO FILTER should equal	117 V	Published in approved 35W4 target datasheet entry; Section1
C = CAPACITOR INPUT TO FILTER should equal 117 volts at	150 mA	Published in approved 35W4 target datasheet entry; Section1