



ELECTRONIC TUBE REFERENCE

EZ81

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Indirectly heated twin-anode full-wave rectifier for higher-current electronic power supplies. Its 6.3 V heater and substantial output capability suit amplifiers and other demanding DC loads.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
MAXIMUM PLATE VOLTAGE	1300 V
PEAK INVERSE VOLTAGE	1300 V
NOMINAL OUTPUT CURRENT	180 mA
PEAK FORWARD CURRENT	500 mA
MAXIMUM HEATER-CATHODE VOLTAGE	500 V
Double-anode rectifying tube; repeated identical rectifier sections compressed to one emitted section row.	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	1300 V
NOMINAL OUTPUT CURRENT	180 mA
PEAK FORWARD CURRENT	500 mA
MAXIMUM HEATER-CATHODE VOLTAGE	500 V
<i>Physical rectifier section 2; identical section values duplicated per physical-section policy.</i>	

Twin-anode full-wave rectifier for higher-current power-supply service.



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1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Rectifier

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	1 A	Published nominal value

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum transformer RMS voltage	350 V	Per anode
Maximum rectifier capacitor	50 uF	Published



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1953 RFT Rundfunk Technik

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1953 RFT RUNDFUNK TECHNIK

Section 1 · Rectifier

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transformer voltage maximum	2x350 V	FullWave
DC output current maximum	150 mA	—
Peak plate current maximum	450 mA	—
Rectified DC voltage	350 V	At2x350VInput



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1956 Amperex Hi Fi Brochure

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1956 AMPEREX HI FI BROCHURE

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC Supply Plate-to-Plate RMS Voltage	700 V	—
Maximum Reservoir Capacitance	50 uF	CapacitorInputFilter
AC Supply Plate-to-Plate RMS Voltage	500 V	CapacitorInputFilter
DC Output Voltage	245 V	CapacitorInputFilter; OutputCurrent=150mA
Limiting Resistor per Plate	150 ohm	CapacitorInputFilter; Input=500Vrms
AC Supply Plate-to-Plate RMS Voltage	700 V	CapacitorInputFilter
DC Output Voltage	347 V	CapacitorInputFilter; OutputCurrent=150mA
Limiting Resistor per Plate	240 ohm	CapacitorInputFilter; Input=700Vrms



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1958 Amperex Industrial

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1958 AMPEREX INDUSTRIAL

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC supply voltage per plate	350 V RMS	CapacitorInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current	150 mA	CapacitorInputFilter
Maximum input capacitor	50 μ F	CapacitorInputFilter
DC output voltage	347 V	CapacitorInputFilter


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1958 Brimar Radio Valve No 7

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1958 BRIMAR RADIO VALVE NO 7

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMSInputPerAnode	350 V	—


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195X Tesla

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195X TESLA

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	1 A	Published nominal value

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1963 Amperex Condensed

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1963 AMPEREX CONDENSED

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC supply voltage per plate	350 V RMS	FullWave
DC output current maximum	150 mA	FullWave
Maximum input capacitor	50 μ F	CapacitorInputFilter
DC output voltage	347 V	FullWave

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1963 Philips Electron Tubes Handbook V1a

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1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC input voltage per plate	250 V RMS	CapacitorInputFilter
Filter capacitance	50 μ F	CapacitorInputFilter
Minimum series resistance per plate	150 ohm	CapacitorInputFilter
DC output current	160 mA	CapacitorInputFilter
DC output voltage	245 V	CapacitorInputFilter
AC input voltage per plate	350 V RMS	CapacitorInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum series resistance per plate	230 ohm	CapacitorInputFilter
DC output current	150 mA	CapacitorInputFilter; ACInput=350V
DC output voltage	352 V	CapacitorInputFilter; ACInput=350V
AC input voltage per plate	450 V RMS	CapacitorInputFilter
Minimum series resistance per plate	310 ohm	CapacitorInputFilter; ACInput=450V
DC output current	100 mA	CapacitorInputFilter; ACInput=450V
DC output voltage	497 V	CapacitorInputFilter; ACInput=450V
AC input voltage per plate	250 V RMS	ChokeInputFilter



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1967 Mullard Receiving Tubes for Maintenance

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1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
P.I.V. max	1.3 V	Characteristic
R" m (pe r anode)	310	Characteristic
t he lim iti ng res ist ance . Rat ing cha rt	2	Characteristic
w it h rat ing ch art	3 w	Characteristic
1 Bo undary fo r o pe ra tio n w it h c_	1 w	Characteristic
) Rl im = R s + n	2	Characteristic



1968 Mazda Belvu

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1968 MAZDA BELVU

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal or stated operating value
Heater or filament current	1 A	Published nominal or stated operating value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum rectifier capacitor	50 uF	Capacitor-input filter



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1972 Philips Receiving Tubes

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1972 PHILIPS RECEIVING TUBES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TransformerVoltage	450 V RMS	FullWave;PerAnode



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1973 Mazda Valves Binder 2

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1973 MAZDA VALVES BINDER 2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	1 A	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum reservoir capacitor	50 uF	Capacitor-input filter
DC output current	160 mA	250 Vrms per anode



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1999 Philips E-Z

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1999 PHILIPS E-Z

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transformer voltage Vir	450 V	Transformer voltage Vir 2x450 VRMS
D.C. current I	100 mA	D.C. current I 100 mA
Heater voltage Vi	6.3 V	Heater voltage Vi 6.3 V
Heater current Ie	1 A	Heater current Ie 1 A
Transformer voltage Ver	450 V	Transformer voltage Ver 2x250 2x350 2x450 VRMS
D.C. current Iy	100 mA	D.C. current Iy 160 150 100 mA
Transformer voltage Ver	450 V	Transformer voltage Ver 2x250 2x350 2x450 Vpms
D.C. current I,	150 mA	D.C. current I, 180 180 150 mA
Anode voltage, peak inverse max	1300 V	Anode voltage, peak inverse max. 1300 V
Anode current, peak max	500 mA	Anode current, peak max. 500 mA
surge max	1.8 A	surge max. 1.8 A

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to heater voltage, k pos max	500 V	Cathode to heater voltage, k pos max. 500 V
Input capacitor of smoothing filter max,	50 w	Input capacitor of smoothing filter max, 50 wuF
Published electrical value	30 V	% 00 200 300 400 500 0 0 20 30 VaV) 40



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199X JJ

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199X JJ

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TransformerSeriesResistancePerPlate	150 ohm	CapacitorInputFilter;50Hz;ACPerPlate=250V
DC Output Current	160 mA	CapacitorInputFilter;50Hz;ACPerPlate=250V
FilterCapacitance	50 uF	CapacitorInputFilter;50Hz;ACPerPlate=250V
DC Output Voltage	245 V	CapacitorInputFilter;50Hz;ACPerPlate=250V
TransformerSeriesResistancePerPlate	230 ohm	CapacitorInputFilter;50Hz;ACPerPlate=350V
DC Output Current	150 mA	CapacitorInputFilter;50Hz;ACPerPlate=350V
FilterCapacitance	50 uF	CapacitorInputFilter;50Hz;ACPerPlate=350V
DC Output Voltage	352 V	CapacitorInputFilter;50Hz;ACPerPlate=350V
TransformerSeriesResistancePerPlate	310 ohm	CapacitorInputFilter;50Hz;ACPerPlate=450V
DC Output Current	100 mA	CapacitorInputFilter;50Hz;ACPerPlate=450V
FilterCapacitance	50 uF	CapacitorInputFilter;50Hz;ACPerPlate=450V
DC Output Voltage	497 V	CapacitorInputFilter;50Hz;ACPerPlate=450V
DC Output Current	180 mA	ChokeInputFilter;50Hz;ACPerPlate=250V
ChokeInductance	10 H	ChokeInputFilter;50Hz;ACPerPlate=250V
DC Output Voltage	199 V	ChokeInputFilter;50Hz;ACPerPlate=250V

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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
U _f	6.3 V	Published value
I _f	1 A	Published value
f	50	Published value
ID.C.	160	Published value
C	50	Published value
f	50	Published value
ID.C.	180	Published value
L	10	Published value
UD.C.	199	Published value
U _{a invp}	1300 V	Published value
I _p	500 mA	Published value
U _{kf}	500 V	Published value
C _{filt max.}	50 μF	Published value
L _{min.}	1 H	Published value

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