



ELECTRONIC TUBE REFERENCE

3DG4

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

High-current full-wave vacuum rectifier for power-supply service. Rated for approximately 1.05 kV peak inverse voltage, 350 mA DC output, and 1.2 A peak current from a 3.3 V heater.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5DE	BASE PINS	5
NOMINAL HEATER	3.3 V / 3.8 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier

PEAK INVERSE VOLTAGE	1050 V
NOMINAL OUTPUT CURRENT	350 mA
PEAK FORWARD CURRENT	1.2 A
FORWARD VOLTAGE DROP	25 V

First physical rectifier section; genuine rectifier ratings retained and unrelated contaminated transconductance cleared.

SECTION2 Rectifier

PEAK INVERSE VOLTAGE	1050 V
NOMINAL OUTPUT CURRENT	350 mA
PEAK FORWARD CURRENT	1.2 A
FORWARD VOLTAGE DROP	25 V

Second physical rectifier section; electrical properties populated from the documented identical section.

A vacuum rectifier documented for television or power-supply service.

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
MAXIMUM PEAK INVERSE PLATE VOLTAGE	1050 VOLTS	Published datasheet value
MAXIMUM STEADY-STATE PEAK PLATE CURRENT PZR PLATE	1200 MA	Published datasheet value
DC OUTPUT CURRENT 3h	350 MA	Published datasheet value
DC OUTPUT VOLTAGE AT FILTER INPUT	300 VOLTS	Published datasheet value

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage	1050 V	EachPlate
Steady state peak plate current	1200 mA	EachPlate
Transient peak plate current	6.5 A	EachPlate
Bulb temperature maximum	200 degC	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop	25 V	350mA Per Plate


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO
Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transient peak plate current per plate	6.5 A	MaximumDuration0.2s
AC plate-supply voltage per plate RMS	275 V	CapacitorInputFilter
Filter input capacitor	40 uF	CapacitorInputFilter
Total plate-supply resistance per plate	32 ohm	CapacitorInputFilter
DC output voltage at filter input	300 V	CapacitorInputFilter

	SOURCE DATA APPENDIX
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SOURCE OPERATING CONDITIONS

SOURCE PDF

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-to-Plate Supply Voltage	550 V	CapacitorInputFilter

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filter Input Capacitor	40 uF	CapacitorInputFilter
Total Effective Plate Supply Impedance Per Plate	32 ohm	CapacitorInputFilter
DC Output Voltage	300 V	CapacitorInputFilter; full-load output current 0.350 A
Hot-Switching Transient Plate Current Per Plate	6.5 A	CapacitorInputFilter
Bulb Temperature	200 C	Hottest point on bulb surface
Filament Voltage	3.3 V	AC or DC; ±10%

1971 RCA HB3 BINDER 4 OF 7

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AC Plate-to-Plate Supply Voltage	550 V	CapacitorInputFilter
Filter Input Capacitor	40 uF	CapacitorInputFilter
Total Effective Plate Supply Impedance Per Plate	32 ohm	CapacitorInputFilter
DC Output Voltage	300 V	CapacitorInputFilter; full-load output current 0.350 A
Hot-Switching Transient Plate Current Per Plate	6.5 A	CapacitorInputFilter
Bulb Temperature	200 C	Hottest point on bulb surface
Filament Voltage	3.3 V	AC or DC; ±10%



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.

1975 RCA RC30

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hot-switching transient plate current per plate	6.6 A	FullWaveRectifier
AC plate-to-plate supply voltage	660 V	CapacitorInputFilter
Filter-input capacitance	40 uF	CapacitorInputFilter
DC output voltage at 350 mA	300 V	CapacitorInputFilter

1975 RCA RC30

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hot-switching transient plate current per plate	6.6 A	FullWaveRectifier