



ELECTRONIC TUBE REFERENCE

6CQ4

Rectifier - Damper Diode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Glass-octal half-wave vacuum rectifier designed as a damper diode in television horizontal-deflection circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4L6	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.6 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
MAXIMUM PLATE VOLTAGE	5500 V
MAXIMUM PLATE DISSIPATION	6.5 W
PEAK INVERSE VOLTAGE	6500 V
NOMINAL OUTPUT CURRENT	180 mA
PEAK FORWARD CURRENT	1.1 A
FORWARD VOLTAGE DROP	34 V
WARM-UP TIME	11 s
<i>Published promoted fields populated from printed headings.</i>	

Glass-octal half-wave vacuum rectifier used as a damper tube in horizontal-deflection circuits of television receivers.



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 Plate Current	1200 mA	—
Maximum DC Plate Current	190 mA	—



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 voltage	5500 V	—
Peak plate current	1200 mA	—
DC plate current	190 mA	—

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-to-cathode capacitance	4 pF	—



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1.6 A	—
Voltage Drop	25 V	I _b =250mA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	5500 V	—
Plate Dissipation	6.5 W	—
Peak Plate Current	1.2 A	—
DC Plate Current	190 mA	—



SOURCE DATA APPENDIX

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum heater-cathode voltage, heater negative DC	900 V	—
Maximum heater-cathode voltage, heater negative total DC and peak	5500 V	—
Maximum heater-cathode voltage, heater positive DC	100 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum heater-cathode voltage, heater positive total DC and peak	300 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop at 250 mA DC	25 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-to-cathode capacitance	4 pF	—
Plate-to-cathode-and-heater capacitance	8.5 pF	—
Cathode-to-plate-and-heater capacitance	11.5 pF	—


SOURCE DATA APPENDIX

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or OC) – published value 1	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Voltage (AC or OC) – published value 2	0.6 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at heater volts = 6.3 – published value 1	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current at heater volts = 6.3 – published value 2	1 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at heater volts = 6.3 – published value 3	600 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate to cathode and heater	8.5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Cathode to plate and heater	11.5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Do Not Use° – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Do Not Use° – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Cathode – published value 1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Cathode – published value 2	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 5- Plate	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Tube Voltage Drop far plate ma. = 250 – published value 1	250 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Tube Voltage Drop far plate ma. = 250 – published value 2	25 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
respect to cathode	300 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
PEAK INVERSE PLATE VOLTAGE°	5500 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PEAK PLATE CURRENT	1200 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
DC PLATE CURRENT	190 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION – published value 1	6 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION – published value 2	5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.



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
Heater Voltage (ac/dc) 6.3 17	22.4 V	Published in approved 17DE4 target datasheet entry; Section1
Heater Current 1.6 0.6	450 mA	Published in approved 17DE4 target datasheet entry; Section1
Heater Warm-up Time (Average) – 11	11 seconds	Published in approved 17DE4 target datasheet entry; Section1
Peak Inverse Plate Voltage#	6500 V	Published in approved 17DE4 target datasheet entry; Section1
Peak Plate Current	1100 mA	Published in approved 17DE4 target datasheet entry; Section1
Average Plate Current	180 mA	Published in approved 17DE4 target datasheet entry; Section1
Plate Dissipation	6.5 W	Published in approved 17DE4 target datasheet entry; Section1
Peak value +300	-5500 V	Published in approved 17DE4 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average value -f-100	900 V	Published in approved 17DE4 target datasheet entry; Section1
Tube Voltage Drop for plate current of	350 mA	Published in approved 17DE4 target datasheet entry; Section1
Tube Voltage Drop for plate current of 350 mA	34 V	Published in approved 17DE4 target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning: cycle (	10 microseconds	Published in approved 17DE4 target datasheet entry; Section1
Heater Voltage (ac/dc) 4.2	6.3 V	Published in approved 17DE4 target datasheet entry; Section1
Heater Current 0.45	300 mA	Published in approved 17DE4 target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 17DE4 target datasheet entry; Section1
Plate Voltage	330 V	Published in approved 17DE4 target datasheet entry; Section1
Grid-No. 3 (Suppressor-Grid) Voltage, Positive value	0 V	Published in approved 17DE4 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	Published in approved 17DE4 target datasheet entry; Section1
Grid-No. I (Control-Grid) Voltage, Positive-bias value	0 V	Published in approved 17DE4 target datasheet entry; Section1
Plate Dissipation	2.3 W	Published in approved 17DE4 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode and Heater	8.5 pF	Published in approved 17DE4 target datasheet entry; Section1
Cathode to Plate and Heater	11.5 pF	Published in approved 17DE4 target datasheet entry; Section1
Heater to Cathode	4 pF	Published in approved 17DE4 target datasheet entry; Section1
Grid No.3, and Internal Shield 6.5	6.5 pF	Published in approved 17DE4 target datasheet entry; Section1
and Internal Shield	2 pF	Published in approved 17DE4 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
frequency in the order of	40 MHz	Published in approved 17DE4 target datasheet entry; Section1