



ELECTRONIC TUBE REFERENCE

3CZ3

Rectifier - TV Line Scan Boost electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Half-wave high-voltage vacuum rectifier designed explicitly for pulsed television high-voltage service. It rectifies flyback-derived pulses to generate the elevated DC supply required by the picture tube.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	3.15 V / 480 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	38000 V
NOMINAL OUTPUT CURRENT	2.2 mA
PEAK FORWARD CURRENT	110 mA
FORWARD VOLTAGE DROP	60 V
<i>Published section ratings promoted where explicitly available; additional source values retained in parameter rows.</i>	

Half-wave high-voltage vacuum rectifier for pulsed television high-voltage service. The supplied RCA datasheet was reviewed for heater data and all additional ratings or characteristics printed on the sheet.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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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
Heater Voltage, ac – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Voltage, ac – published value 2	3.15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Current at Eh=3.15 V – published value 1	3.15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Current at Eh=3.15 V – published value 2	0.48 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Warm-up Time	4	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Direct Interelectrode Capacitance:°	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Instantaneous Tube Voltage Drop – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Instantaneous Tube Voltage Drop – published value 2	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Instantaneous Tube Voltage Drop – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
for Instantaneous Plate Current – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
for Instantaneous Plate Current – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Inverse Plate Voltage:0 – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Inverse Plate Voltage:0 – published value 2	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Voltage – published value 1	2.65 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Voltage – published value 2	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Voltage – published value 3	3.65 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
current issue of EIA Standard RS-191 – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
current issue of EIA Standard RS-191 – published value 2	-191	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
As defined in the current issue of EIA Standard RS-239 – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
As defined in the current issue of EIA Standard RS-239 – published value 2	-239	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
This rating is applicable when the duration of the voltage – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
This rating is applicable when the duration of the voltage – published value 2	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
This rating is applicable when the duration of the voltage – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Pin 2 -Heater	2	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 7 -Heater, Cathode, – published value 1	7	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Pin 7 -Heater, Cathode, – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
High Voltages. The high voltages at which the 3CZ3 – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
High Voltages. The high voltages at which the 3CZ3 – published value 2	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
High Voltages. The high voltages at which the 3CZ3 – published value 3	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
X-Radiation. Operation of the 3CZ3 with a plate volt – published value 1	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
X-Radiation. Operation of the 3CZ3 with a plate volt – published value 2	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
X-Radiation. Operation of the 3CZ3 with a plate volt – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
duction o~ X-radiation which can constitute a health – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
duction o~ X-radiation which can constitute a health – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
duction o~ X-radiation which can constitute a health – published value 3	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Instantaneous tube voltage drop	60 V	Explicitly published rectifier rating/characteristic.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage	38000 V	Explicitly published rectifier rating/characteristic.
Peak plate current	110 mA	Explicitly published rectifier rating/characteristic.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average plate current	2.2 mA	Explicitly published rectifier rating/characteristic.

TUBE TINKER

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