

ELECTRONIC TUBE REFERENCE

3A3A

Rectifier - TV Line Scan Boost electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
RECTIFIER

High-voltage television rectifier of the 3A3 family for flyback-derived picture-tube supplies. Its specialized construction supports low-current, high-pulse-voltage EHT generation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	3.15 V / 220 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	30000 V
NOMINAL OUTPUT CURRENT	2 mA
PEAK FORWARD CURRENT	100 mA
FORWARD VOLTAGE DROP	100 V
Published section ratings promoted where explicitly available; additional source values retained in parameter rows.	

Very-high-voltage rectifier for color-television picture-tube EHT supplies; the source warns of X-ray emission above 18 kV.



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	3.15 V	Published nominal value
Heater or filament current	220 mA	Published nominal value
Instantaneous voltage drop	100 V	At 1 mA anode current

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
X-ray warning threshold	18 kV	Source warns of X-ray emission above this operating voltage



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
For High-Voltage Rectifier Circuits in – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
For High-Voltage Rectifier Circuits in – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (A,C) – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (A,C) – published value 2	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (A,C) – published value 3	15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current at 3.15 V – published value 1	3.15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current at 3.15 V – published value 2	0.22 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Direct Interelectrode Capacitance (Approx.) – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Direct Interelectrode Capacitance (Approx.) – published value 2	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.
Pin 2 -Heater	2	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
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.
Peak Inverse Plate Voltagea – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Plate Voltagea – published value 2	30000 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Peak Plate Current	100 mA	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Heater Voltage, AC	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
The high voltages at which the 3A3A is operated may be – published value 1	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
The high voltages at which the 3A3A is operated may be – published value 2	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
The high voltages at which the 3A3A is operated may be – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
voltage supply when any gate or door on the protective housing – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
voltage supply when any gate or door on the protective housing – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
voltage supply when any gate or door on the protective housing – published value 3	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
It should be noted that high voltages may appear at normally – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
It should be noted that high voltages may appear at normally – published value 2	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
It should be noted that high voltages may appear at normally – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
low-potential points in the circuit as a result of capacitor – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
low-potential points in the circuit as a result of capacitor – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
low-potential points in the circuit as a result of capacitor – published value 3	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
should be turned off and both terminals of any capacitor should – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
should be turned off and both terminals of any capacitor should – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
should be turned off and both terminals of any capacitor should – published value 3	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Operation of the 3A3A with a plate voltage a60 ve approxi – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Operation of the 3A3A with a plate voltage a60 ve approxi – published value 2	60 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Operation of the 3A3A with a plate voltage a60 ve approxi – published value 3	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
of X-radiations which can constitute a health hazard on pro – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
of X-radiations which can constitute a health hazard on pro – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
of X-radiations which can constitute a health hazard on pro – published value 3	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Instantaneous tube voltage drop	100 V	Explicitly published rectifier rating/characteristic.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage	30000 V	Explicitly published rectifier rating/characteristic.
Peak plate current	100 mA	Explicitly published rectifier rating/characteristic.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average plate current	2 mA	Explicitly published rectifier rating/characteristic.

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