

ELECTRONIC TUBE REFERENCE

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
RECTIFIER

1J3

Rectifier - TV Line Scan Boost electronic tube

High-voltage television flyback/EHT rectifier designed to convert horizontal-output transformer pulses into the DC accelerating supply required by the CRT.

GENERAL CHARACTERISTICS

BASE DESIGNATION	3C	BASE PINS	6
NOMINAL HEATER	1.25 V / 200 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

3C - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	–	–	IC
PIN2 – Pin 2	–	F – Filament	CONNECTED
PIN3 – Pin 3	–	–	IC
PIN5 – Pin 5	–	–	IC
PIN7 – Pin 7	–	F – Filament	CONNECTED
PIN8 – Pin 8	–	–	IC
CAP1 – Top cap	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	26000 V
NOMINAL OUTPUT CURRENT	0.5 mA
PEAK FORWARD CURRENT	50 mA
FORWARD VOLTAGE DROP	225 V
<i>Flyback rectifier service; maximum peak inverse plate voltage 30 kV total DC+peak.</i>	

1J3 is a high-voltage vacuum rectifier for television power-supply or flyback service. The supplied RCA manual excerpt was reviewed for heater data, physical sections, maximum ratings, electrical characteristics, capacitances, and stated operating conditions.



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
PeakInverseVoltageDCComponent	24000 V	FlybackRectifier



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
Filament Voltage	1.25 V	—
Filament Current	200 mA	—
Plate-to-Filament Capacitance	1.6 pF	—
Tube Voltage Drop	225 V	PlateCurrent=7mA

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Plate Voltage	26000 V	Flyback
Steady-State Peak Plate Current	50 mA	—
DC Output Current	0.5 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament/heater voltage	1.25 V	—
Filament/heater current	200 mA	—
Maximum total DC-plus-peak inverse voltage	—26000 V	FlybackRectifier
Maximum steady-state peak plate current	50 mA	FlybackRectifier
Maximum DC output current	0.5 mA	FlybackRectifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-filament/heater capacitance	1.6 pF	Approximate



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
Peak inverse plate voltage DC component	22000 V	FlybackRectifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse plate voltage total DC and peak	26000 V	FlybackRectifier
Steady state peak plate current	50 mA	FlybackRectifier
DC output current	0.5 mA	FlybackRectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop	225 V	Ib=7mA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Interelectrode capacitance	1.3 pF	—


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
Peak Plate Current	60 mA	Peak Plate Current 60 mA
Average Plate Current	0.5 mA	Average Plate Current 0.5 mA
Tube Voltage Drop for plate current of	7 mA	Tube Voltage Drop for plate current of 7 mA 225 volt*
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 us	# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
Average output/plate current	0.5 mA	Published section value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1.25 V	Rated heater condition

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	200 mA	Rated heater condition

TUBE TINKER

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and their source documents.

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