



ELECTRONIC TUBE REFERENCE

17JZ8

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

BEAMPOWER-TRIODE

Combination triode and beam-power tube designed for television vertical-deflection oscillator and amplifier applications, with a 12-watt beam section and substantial pulse ratings.

GENERAL CHARACTERISTICS

BASE DESIGNATION	120Z	BASE PINS	12
NOMINAL HEATER	16.8 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	25 mA
<i>Reference/equivalence-only source does not reproduce the referenced electrical ratings/characteristics; promoted values intentionally not inferred from external datasheets.</i>	

SECTION2 Beam Power	
PLATE RESISTANCE	25000 Ω
TRANSCONDUCTANCE	0.0065 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	80 mA
Reference/equivalence-only source does not reproduce the referenced electrical ratings/characteristics; promoted values intentionally not inferred from external datasheets.	

Combined triode and beam-power tube for television vertical-deflection oscillator and amplifier applications. It is an explicit heater variant/co-designation in 24JZ8.pdf.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID	1 pF	Published datasheet; section table
INPUT: G	11 pF	Published datasheet
OUTPUT: PTO(H+K+G	7 pF	Published datasheet
GRID TO PLATE (G TO P)	3.6 pF	Published datasheet
INPUT: G TO (H + K)	2.2 pF	Published datasheet
OUTPUT: P TO (H + K)	0.7 pF	Published datasheet
DESIGN MAXIMUM VALUE •SEE EIA STANDARD RS•	239 mA	Published datasheet
AVERAGE CHARACTERISTICS	450 mA	Published datasheet
DC COMPONENT	100 V	Published datasheet
TOTAL DC AND PEAK	200 V	Published datasheet
TOTAL DC AND PEAK	200 V	Published datasheet
DESIGN MAXIMUM RATINGS •SEE EIA STANDARD RS•	239 mA	Published datasheet
GRID	2 V	Published datasheet; section table
PEAK NEGATIVE GRID	1 V	Published datasheet; section table
PLATE DISSIPATION	1 W	Published datasheet; section table
GRID	2 W	Published datasheet; section table
WITH CATHODE eLAS	2 ohm	Published datasheet
GRID	2 V	Published datasheet; section table
GRID	1 V	Published datasheet; section table
GRID	2 mA	Published datasheet; section table
GRID	1 V	Published datasheet; section table

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
APPLIED FOR SHORT INTERVAL (	1 s	Published datasheet

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LIMITS OF SUPPLIED CURRENT	450 mA	Published datasheet; section table
PLATE VOLTAGE - DC	250 V	Published datasheet; section table
PEAK PULSE PLATE VOLTAGE	2 V	Published datasheet
CATHODE CURRENT - DC	20 mA	Published datasheet; section table
PEAK CATHODE CURRENT	70 mA	Published datasheet; section table
PLATE VOLTAGE	150 V	Published datasheet; section table
PLATE CURRENT	5.5 mA	Published datasheet; section table
AMPLIFICATION FACTOR	20 A	Published datasheet
TRANSCONDUCTANCE	2.35 μ S	Published datasheet; section table
PLATE RESISTANCE - APPROX	8.5 ohm	Published datasheet; section table

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID	0.34 pF	Published datasheet; section table
GRID	200 V	Published datasheet; section table
PEAK NEGATIVE GRID	400 V	Published datasheet; section table
PLATE DISSIPATION	7 W	Published datasheet; section table
GRID	1.8 W	Published datasheet; section table
GRID	110 V	Published datasheet; section table
GRID	-5 V	Published datasheet; section table
GRID	16.5 mA	Published datasheet; section table
GRID	16 V	Published datasheet; section table

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LIMITS OF SUPPLIED CURRENT	30 mA	Published datasheet; section table
PLATE VOLTAGE - DC	250 V	Published datasheet; section table
CATHODE CURRENT - DC	70 mA	Published datasheet; section table

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PEAK CATHODE CURRENT	245 mA	Published datasheet; section table
PLATE VOLTAGE	45 V	Published datasheet; section table
PLATE CURRENT	122 mA	Published datasheet; section table
TRANSCONDUCTANCE	7.1 μ S	Published datasheet; section table
PLATE RESISTANCE - APPROX	11.7 ohm	Published datasheet; section table


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warmup Time	11 s	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	16.8 V	—
Heater current	450 mA	—
Heater warm-up time	11 s	ControlledWarmup
Plate voltage	150 V	Triode;ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	18 mA	Triode;ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	5000 ohm	Triode
Transconductance	8500 uS	Triode
Amplification factor	40	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.8 pF	Triode

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	BeamPower;ClassA
Screen voltage	250 V	BeamPower;ClassA
Plate current	50 mA	BeamPower;ClassA
Plate dissipation	12 W	BeamPower
Screen dissipation	2.5 W	BeamPower

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6500 uS	BeamPower

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.4 pF	BeamPower



SOURCE DATA APPENDIX

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-up Time	11 s	Other;PublishedValue1
Heater Warm-up Time	11 s	Other;PublishedValue2
Heater Warm-up Time	11 s	Other;PublishedValue3
Peak value t2	0 V	Other;PublishedValue1
Peak value t2	200 V	Other;PublishedValue2
Peak value t2	200 V	Other;PublishedValue3
Peak value t2	200 V	Other;PublishedValue4
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue3
Average value	100 V	Other;PublishedValue4
DC Plate Voltage	250 V	MaximumRating;PublishedValue1
DC Plate Voltage	250 V	MaximumRating;PublishedValue2
Peak Positive-Pulse Plate Voltage* –	2000 V	MaximumRating
Peak Negative-Pulse Grid-No.1 Voltage	200 V	MaximumRating
Published value	400 V	MaximumRating;PublishedValue1
Published value	150 V	MaximumRating;PublishedValue2
Average Cathode Current	70 mA	MaximumRating;PublishedValue1
Average Cathode Current	245 mA	MaximumRating;PublishedValue2
Plate Dissipation*	20 mA	MaximumRating;PublishedValue1
Plate Dissipation*	70 mA	MaximumRating;PublishedValue2
Published value	1 W	MaximumRating;PublishedValue1
Published value	7 W	MaximumRating;PublishedValue2
Grid-No	2 W	MaximumRating;PublishedValue1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	1.8 W	MaximumRating;PublishedValue2
For fixed-bias operation	1 megohm	MaximumCircuitValue;PublishedValue1
For fixed-bias operation	1 megohm	MaximumCircuitValue;PublishedValue2
For cathode-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue1
For cathode-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue2
Maximum Plate Voltage	250 V	Section1;Promoted
Maximum Plate Dissipation	1 W	Section1;Promoted
Maximum Cathode Current	70 mA	Section1;Promoted

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	Characteristic;PublishedValue1
Plate Voltage	45 V	Characteristic;PublishedValue2
Plate Voltage	120 V	Characteristic;PublishedValue3
Grid-No	2 V	Characteristic;PublishedValue1
Grid-No	110 V	Characteristic;PublishedValue2
Grid-No	110 V	Characteristic;PublishedValue3
Grid-No.1 (Control-Grid) Voltage	-6 V	Characteristic;PublishedValue1
Grid-No.1 (Control-Grid) Voltage	0 V	Characteristic;PublishedValue2
Grid-No.1 (Control-Grid) Voltage	-8 V	Characteristic;PublishedValue3
Plate Resistance (Approx.)	8500 ohm	Characteristic;PublishedValue1
Plate Resistance (Approx.)	11700 ohm	Characteristic;PublishedValue2
Transconductance	2350 uS	Characteristic;PublishedValue1
Transconductance	7100 uS	Characteristic;PublishedValue2
Plate Current	5.5 mA	Characteristic;PublishedValue1
Plate Current	122 mA	Characteristic;PublishedValue2
Plate Current	46 mA	Characteristic;PublishedValue3
Grid-No.1 Voltage (Approx.)	16.5 mA	Characteristic;PublishedValue1
Grid-No.1 Voltage (Approx.)	3.5 mA	Characteristic;PublishedValue2
for plate current	10 V	Characteristic;PublishedValue1
for plate current	-10 V	Characteristic;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	8500 ohm	Section1;Promoted
Transconductance	2350 uS	Section1;Promoted
Amplification Factor	20	Section1;Promoted

1975 RCA RC30

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	250 V	Section2;Promoted
Maximum Screen Voltage	200 V	Section2;Promoted
Maximum Plate Dissipation	7 W	Section2;Promoted
Maximum Screen Dissipation	1.8 W	Section2;Promoted
Maximum Cathode Current	245 mA	Section2;Promoted

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	11700 ohm	Section2;Promoted
Transconductance	7100 uS	Section2;Promoted

TUBE TINKER

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and their source documents.

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