



ELECTRONIC TUBE REFERENCE

6JZ8

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

BEAMPOWER-TRIODE

Multi-section television tube whose beam-power section is intended for vertical-deflection output, combined with a small-signal section for associated oscillator or amplifier circuitry.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E12-70	BASE PINS	12
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	11700 Ω
TRANSCONDUCTANCE	0.0071 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	200 V
MAXIMUM PLATE DISSIPATION	7 W
MAXIMUM SCREEN DISSIPATION	1.8 W
MAXIMUM CATHODE CURRENT	70 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

SECTION2 Triode	
PLATE RESISTANCE	8500 Ω
TRANSCONDUCTANCE	0.00235 S
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

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](#)

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakPulsePlateVoltage	2000 V	VerticalDeflection
Peak Cathode Current	245 mA	VerticalDeflection
Plate Voltage	120 V	Beam pentode typical operation
Screen Voltage	110 V	Beam pentode typical operation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	46 mA	Beam pentode typical operation
Screen Current	3.5 mA	Beam pentode typical operation

1961 TUNG SOL

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	Triode typical operation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	5.5 mA	Triode typical operation

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak pulse plate voltage	2000 V	PentodeSection;VerticalDeflection
Peak cathode current	245 mA	PentodeSection;VerticalDeflection
Plate voltage	120 V	PentodeSection;VerticalDeflection
Grid 2 voltage	110 V	PentodeSection;VerticalDeflection
Grid 1 voltage	-8 V	PentodeSection;VerticalDeflection
Plate current	46 mA	PentodeSection;VerticalDeflection
Grid 2 current	3.5 mA	PentodeSection;VerticalDeflection

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	TriodeSection;VerticalOscillator
Grid 1 voltage	-5 V	TriodeSection;VerticalOscillator
Plate current	5.5 mA	TriodeSection;VerticalOscillator
Peak cathode current	70 mA	TriodeSection;VerticalOscillator



SOURCE DATA APPENDIX

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	46 mA	—
Screen Current	3.5 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	2.2 pF	—



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 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	6.3 V	Published table value column 1
Voltage (AC or DC)	6 V	Published table value column 2
Current at heater volts =	6.3 V	Published table value column 1
Current at heater volts =	1.2 V	Published table value column 2
Heater negative with respect to cathode	200 V	Published table value
Heater positive with respect to cathode	200 V	Published table value
Input: GT to (KT,H)	2.2 pF	Published table value
Output: PT to (KT,H)	0.7 pF	Published table value
Input: G	6 pF	Published table value column 1
Input: G	6 pF	Published table value column 2
Input: G	11 pF	Published table value column 3
Output: PB to (KB+G	8 pF	Published table value column 1
Output: PB to (KB+G	7 pF	Published table value column 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	Published table value column 1
Plate Voltage	45 V	Published table value column 2
Plate Voltage	120 V	Published table value column 3
Grid-No	2 V	Published table value column 1
Grid-No	110 V	Published table value column 2
Grid-No	110 V	Published table value column 3
Grid-No	1 V	Published table value column 1
Grid-No	-5 V	Published table value column 2
Grid-No	0 V	Published table value column 3
Grid-No	-8 V	Published table value column 4
Plate Current	5.5 mA	Published table value column 1
Plate Current	122 mA	Published table value column 2
Plate Current	46 mA	Published table value column 3
Grid-No	2 mA	Published table value column 1
Grid-No	16.5 mA	Published table value column 2
Grid-No	3.5 mA	Published table value column 3
for plate μ =	10 V	Published table value
DC Plate Voltage	250 V	Published table value
Peak Negative Pulse-Grid Voltage	400 V	Published table value
Plate Dissipation	1 W	Published table value
Peak Positive-Pulse Plate Voltage	2000 V	Published table value
Grid No	2 V	Published table value column 1
Grid No	200 V	Published table value column 2
Plate Dissipation d	7 W	Published table value
Grid-No	2 W	Published table value column 1
Grid-No	1 W	Published table value column 2
Grid-No	8 W	Published table value column 3

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx)	8500 Ω	Published table value column 1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx)	1700 Ω	Published table value column 2



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 · 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 μ S	Section2;Promoted

1975 RCA RC30

Section 2 · 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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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
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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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