



ELECTRONIC TUBE REFERENCE

13JZ8

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 service, integrating sweep generation and output amplification in one envelope.

GENERAL CHARACTERISTICS

BASE DESIGNATION	120Z	BASE PINS	12
NOMINAL HEATER	12.7 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 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	70 mA
Reference/equivalence-only sparse-source exception; ratings/characteristics not reproduced.	

SECTION2 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	245 mA
<i>Reference/equivalence-only sparse-source exception; beam pentode ratings/characteristics not reproduced.</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](#)

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-up Time	11 s	Average



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 · 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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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
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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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
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



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and their source documents.

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