



ELECTRONIC TUBE REFERENCE

8LT8

Voltage Pentode or Tetrode (with diode) electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-PENTODE

Series-string television diode-pentode intended for IF and video-detector service, combining wideband pentode amplification with a dedicated signal-detection diode.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9RL	BASE PINS	9
NOMINAL HEATER	8.1 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode

No fixed ratings recorded.

Representative of two diode sections.

SECTION2 Diode

MAXIMUM CATHODE CURRENT	5 mA
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Second physical diode section added in approved reconciliation.

SECTION3 Pentode	
PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.013 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3.1 W
MAXIMUM SCREEN DISSIPATION	0.65 W
<i>Published ratings and characteristics extracted from the approved RCA source. Pulse-only ratings remain parameter rows unless explicitly continuous.</i>	

Twin diode and sharp-cutoff pentode for television horizontal oscillator and AFC discriminator circuits.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Continuous Diode Current	5 mA	EachDiode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode Plate-Cathode Capacitance	1.4 pF	Representative

1964 RMA EIA

Section 3 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	8.1 V	—
Heater Current	450 mA	—
Heater Warm-up Time	11 s	—
Plate-Grid Capacitance	0.05 pF	—
Input Capacitance	10 pF	—
Output Capacitance	3.8 pF	—
Plate Voltage	125 V	—
Screen Voltage	125 V	—
Plate Resistance	200000 ohm	—
Transconductance	13000 uS	—
Plate Current	10 mA	—
Screen Current	3.4 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Screen Supply Voltage	330 V	—
Maximum Plate Dissipation	3.1 W	—
Maximum Screen Dissipation	0.65 W	—


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 3 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-up Time (Average)	11 s	Other;PublishedValue1
Heater Warm-up Time (Average)	11 s	Other;PublishedValue2
Heater Warm-up Time (Average)	11 s	Other;PublishedValue3
Peak value	200 V	Other;PublishedValue1
Peak value	200 V	Other;PublishedValue2
Peak value	200 V	Other;PublishedValue3
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue3
Plate Voltage	330 V	MaximumRating
Grid-No	2 V	MaximumRating;PublishedValue1
Grid-No	330 V	MaximumRating;PublishedValue2
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation	3.1 W	MaximumRating
For grid-No	2 V	MaximumRating;PublishedValue1
For grid-No	165 V	MaximumRating;PublishedValue2
For grid-No	0.65 V	MaximumRating;PublishedValue3
For grid-No	2 V	MaximumRating;PublishedValue1
For grid-No	165 V	MaximumRating;PublishedValue2
For grid-No	33 V	MaximumRating;PublishedValue3
For grid-No	300 V	MaximumRating;PublishedValue4
Maximum Plate Voltage	330 V	Section1
Maximum Screen Voltage	330 V	Section1
Maximum Plate Dissipation	3.1 W	Section1
Maximum Screen Dissipation	0.65 W	Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	Characteristic
Grid-No	2 V	Characteristic;PublishedValue1
Grid-No	125 V	Characteristic;PublishedValue2
Cathode-Bias Resistor	56 ohm	Characteristic
Plate Resistance (Approx.)	200000 ohm	Characteristic
Plate Current	10 mA	Characteristic
Grid-No	2 mA	Characteristic;PublishedValue1
Grid-No	3.4 mA	Characteristic;PublishedValue2
Grid-No.1 Voltage (Approx.) for plate current of	20 V	Characteristic;PublishedValue1
Grid-No.1 Voltage (Approx.) for plate current of	-3.5 V	Characteristic;PublishedValue2
Tube Voltage Drop for plate current of	20 mA	Characteristic
Plate Resistance	200000 ohm	Section1
Transconductance	13000 uS	Section1