ELECTRONIC TUBE REFERENCE

9U8A

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
PENTODE-TRIODE

> Medium-mu triode and sharp-cutoff pentode for combined television oscillator and mixer service around a 40-MHz intermediate frequency.

General characteristics

BASE DESIGNATION	9AE	**BASE PINS**	9
NOMINAL HEATER	9.45 V / 300 mA	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Dissimilar

9AE - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 — 2P	B	P — Plate (Anode)	CONNECTED
PIN2 — 1G1	A	G1 — Control Grid	CONNECTED
PIN3 — 1G2	A	G2 — Screen Grid	CONNECTED
PIN4 — H	—	H — Heater	CONNECTED
PIN5 — H	—	H — Heater	CONNECTED
PIN6 — 1P	A	P — Plate (Anode)	CONNECTED
PIN7 — 1G3	A	G3 — Suppressor Grid	CONNECTED
PIN7 — IS	A	IS — Internal Screen	CONNECTED
PIN7 — 1K	A	K — Cathode	CONNECTED
PIN8 — 2K	B	K — Cathode	CONNECTED
PIN9 — 2G1	B	G1 — Control Grid	CONNECTED

Section ratings

SECTION1 Triode

TRANSCONDUCTANCE	0.0075 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.5 W

Promoted from published ratings/characteristics where directly applicable; additional published values retained in TUBE_SECTION_PARAMETER.

SECTION2 Pentode

PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.005 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	0.55 W

Promoted from published ratings/characteristics where directly applicable; additional published values retained in TUBE_SECTION_PARAMETER.

> Medium-mu triode and sharp-cutoff pentode for combined television oscillator and mixer service around 40 MHz.

SOURCE OPERATING CONDITIONS

1975 RCA RC30

SOURCE PDF

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**
^fc T	**40 MHz**	Other;PublishedValue1
^fc T	**4.7 MHz**	Other;PublishedValue2
^fc T	**6 MHz**	Other;PublishedValue3
^fc T	**9 MHz**	Other;PublishedValue4
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
Average value	**100 V**	Other;PublishedValue1
Average value	**100 V**	Other;PublishedValue2
Plate Voltage	**330 V**	MaximumRating;PublishedValue1
Plate Voltage	**330 V**	MaximumRating;PublishedValue2
Grid-No	**2 V**	MaximumRating;PublishedValue1
Grid-No	**330 V**	MaximumRating;PublishedValue2
Grid-No.l (Control-Grid) Voltage, Positive-bias value	**0 V**	MaximumRating;PublishedValue1
Grid-No.l (Control-Grid) Voltage, Positive-bias value	**0 V**	MaximumRating;PublishedValue2
Plate Dissipation	**2.5 W**	MaximumRating;PublishedValue1
Plate Dissipation	**3 W**	MaximumRating;PublishedValue2
For grid-No	**2 V**	MaximumRating;PublishedValue1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For grid-No	**165 V**	MaximumRating;PublishedValue2
For grid-No	**0.55 V**	MaximumRating;PublishedValue3
For grid-No	**2 V**	MaximumRating;PublishedValue1
For grid-No	**165 V**	MaximumRating;PublishedValue2
For grid-No	**330 V**	MaximumRating;PublishedValue3
For grid-No	**300 V**	MaximumRating;PublishedValue4
Maximum Plate Voltage	**330 V**	Section1
Maximum Plate Dissipation	**2.5 W**	Section1

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	**1.8 pF**	Capacitance;PublishedValue1
Grid to Plate	**1.8 pF**	Capacitance;PublishedValue2
Pentode Grid No	**3 pF**	Capacitance;PublishedValue1
Pentode Grid No	**2.8 pF**	Capacitance;PublishedValue2
Pentode Grid No	**2.8 pF**	Capacitance;PublishedValue3
Pentode Grid No	**3 pF**	Capacitance;PublishedValue1
Pentode Grid No	**1.5 pF**	Capacitance;PublishedValue2
Pentode Grid No	**2 pF**	Capacitance;PublishedValue3
Grid No.l to Plate	**0.01 pF**	Capacitance;PublishedValue1
Grid No.l to Plate	**0.006 pF**	Capacitance;PublishedValue2
Grid No	**3 pF**	Capacitance;PublishedValue1
Grid No	**5 pF**	Capacitance;PublishedValue2
Grid No	**5 pF**	Capacitance;PublishedValue3
Grid No	**3 pF**	Capacitance;PublishedValue1
Grid No	**2.6 pF**	Capacitance;PublishedValue2
Grid No	**3.5 pF**	Capacitance;PublishedValue3
Triode Cathode to Heater	**3 pF**	Capacitance;PublishedValue1
Triode Cathode to Heater	**3 pF**	Capacitance;PublishedValue2
Internal Shield	**3 pF**	Capacitance;PublishedValue1
Internal Shield	**3 pF**	Capacitance;PublishedValue2
Pentode Grid No.l to Triode Plate	**0.2 pF**	Capacitance;PublishedValue1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode Grid No.l to Triode Plate	**0.2 pF**	Capacitance;PublishedValue2
Pentode Plate to Triode Plate	**0.1 pF**	Capacitance;PublishedValue1
Pentode Plate to Triode Plate	**0.02 pF**	Capacitance;PublishedValue2

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	**125 V**	Characteristic;PublishedValue1
Plate Voltage	**125 V**	Characteristic;PublishedValue2
Grid-No2 Voltage	**110 V**	Characteristic
Grid-No.l Voltage	**-1 V**	Characteristic
Plate Resistance (Approx.)	**0.2 megohm**	Characteristic
Plate Current	**13.5 mA**	Characteristic;PublishedValue1
Plate Current	**9.5 mA**	Characteristic;PublishedValue2
Grid-No	**2 mA**	Characteristic;PublishedValue1
Grid-No	**3.5 mA**	Characteristic;PublishedValue2
Grid-No.l Voltage (Approx.) for plate current of	**20 V**	Characteristic;PublishedValue1
Grid-No.l Voltage (Approx.) for plate current of	**-9 V**	Characteristic;PublishedValue2
Grid-No.l Voltage (Approx.) for plate current of	**-8 V**	Characteristic;PublishedValue3
Transconductance	**7500 uS**	Section1
Amplification Factor	**40**	Section1

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Section 2 · Pentode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	**330 V**	Section2
Maximum Screen Voltage	**330 V**	Section2
Maximum Plate Dissipation	**3 W**	Section2
Maximum Screen Dissipation	**0.55 W**	Section2

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Resistance	**200000 ohm**	Section2
Transconductance	**5000 uS**	Section2

Tube Tinker

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