

ELECTRONIC TUBE REFERENCE

3CY5

Voltage - Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TETRODE

VHF tetrode designed as the RF amplifier in television tuners, providing high-frequency gain with controlled cutoff characteristics for front-end receiver service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7EW	BASE PINS	7
NOMINAL HEATER	2.9 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7EW - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – IS	A	IS – Internal Screen	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Tetrode	
PLATE RESISTANCE	125000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published section ratings promoted where explicitly available; additional source values retained in parameter rows.</i>	

A sharp-cutoff tetrode intended for VHF RF amplification in television tuners.



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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	108 VOLTS	Published datasheet value
PLATE CURRENT	10 MA	Published datasheet value



SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	—
Screen-grid voltage	80 V	—
Grid 1 voltage	-1 V	—
Plate current	10 mA	—
Screen-grid current	1.4 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	125000 Ohm	—
Transconductance	8000 uS	—
Control-grid cutoff voltage	-6 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	Shielded
Input capacitance	4.4 pF	Shielded
Output capacitance	2.8 pF	Shielded


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	2.9 V	Published heater rating
Heater current	600 mA	Published heater rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	150 V	Published limit
Maximum screen supply voltage	150 V	Published limit
Maximum plate dissipation	2 W	Published limit
Maximum screen dissipation	0.5 W	Published limit
Maximum cathode current	20 mA	Published limit


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current – published value 1	0.45	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current – published value 2	0.03	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 2	0.45 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 3	2.9 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.



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 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater warm-up time	11 s	ClassA
Plate voltage	125 V	ClassA
Plate current	10 mA	ClassA
Grid 2 current	1.5 mA	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to plate capacitance	0.03 pF	—

TUBE TINKER

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