

ELECTRONIC TUBE REFERENCE

4DT6A

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Dual-control sharp-cutoff miniature pentode used primarily as an FM detector in color and black-and-white television receivers. Its independently effective control grids provide the specialized detector and control characteristics required in television sound circuitry.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7EN	BASE PINS	7
NOMINAL HEATER	4.2 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7EN - 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 – G3	A	G3 – Suppressor Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.007 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	1.1 W
<i>Reference/equivalence-only source: base-type electrical ratings/characteristics are not reproduced in the approved PDF; promoted values intentionally not inferred. Electrical ratings/characteristics inherited from the explicitly referenced 6-volt parent type; supplied sheet changes heater characteristics.</i>	

Miniature sharp-cutoff pentode used as an FM detector in color and black-and-white television receivers.



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

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	420 mA–480 mA	Published nominal $\pm$ tolerance
Heater Voltage	4.2 V	At heater current 0.45 A
Warm-Up Time	11 s	Average
Plate Voltage	330 V	Inherited from explicitly referenced 6-volt parent type; heater variant
Screen Supply Voltage	330 V	Inherited from explicitly referenced 6-volt parent type; heater variant

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7000 μ S	Inherited from explicitly referenced 6-volt parent type; heater variant



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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.02 pF	Capacitance

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode/Heater/Grid No.2/Grid No.3/Internal Shield	5.8 pF	Capacitance
Grid No.3 to Plate	1.7 pF	Capacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	160 V	ClassA
Grid-No.2 Supply Voltage	100 V	ClassA
Cathode-Bias Resistor	560 ohm	ClassA
Transconductance Grid No.1 to Plate	1350 uS	ClassA
Transconductance Grid No.3 to Plate	515 uS	ClassA
Plate Current	1.55 mA	ClassA
Grid-No.2 Current	1.8 mA	ClassA

TUBE TINKER

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