

ELECTRONIC TUBE REFERENCE

50HK6

Power - Pentode Single (NOT beam) (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Beam-power pentode designed for radio-receiver audio-output stages, with high peak-current capability and a tapped heater for panel-lamp operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7FZ	BASE PINS	7
NOMINAL HEATER	50 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7FZ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – G2	A	G2 – Screen Grid	CONNECTED
PIN6 – HCT	–	HCT – Heater Center Tap	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	10000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM SCREEN VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	5.5 W
MAXIMUM SCREEN DISSIPATION	1.1 W
<i>Promoted from published ratings/characteristics tables; additional published values retained in TUBE_SECTION_PARAMETER.</i>	

Power pentode for audio-frequency power-output stages of radio receivers, with a tapped heater for a panel lamp. Extracted from the supplied RCA Receiving Tube Manual excerpt.



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	50 V	—
Heater current	150 mA	—
Heater tap voltage	7 V	—
Plate voltage	110 V	ClassA1
Screen voltage	110 V	ClassA1
Maximum signal power output	1.9 W	ClassA1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.5 pF	—
Input capacitance	14 pF	—
Output capacitance	3 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	110 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical screen voltage	110 V	ClassA
Zero-signal plate current	49 mA	ClassA
Load resistance	3000 ohm	ClassA
Maximum-signal power output	1.9 W	ClassA
Maximum plate voltage	150 V	PromotedValue
Maximum screen voltage	130 V	PromotedValue
Maximum plate dissipation	5.5 W	PromotedValue
Maximum screen dissipation	1.1 W	PromotedValue
Heater Tap Voltage When Panel Lamp Fails Rms	14 V	PublishedTable
Grid #2 Voltage	130 V	PublishedTable
Plate Dissipation	5.5 W	PublishedTable
Grid #2 Dissipation	1.1 W	PublishedTable
Peak Af Grid #1 Voltage	7.5 V	PublishedTable
Zero-Signal Plate Current	49 mA	PublishedTable
Total Harmonic Distortion~ (Approx.)	9 %	PublishedTable
Max.-Signal Power Output	1.9 W	PublishedTable
(Between Pins 3 & 6) 150 150 150 150 150 150	150 mA	PublishedTable
Panel-Lamp Shunting Resistor --- --- 370. 175 120 ,Fl8	73 ohm	PublishedTable

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	10000 ohm	PromotedValue
Transconductance	0.0075 A/V	PromotedValue
Average Characteristics 50 Volts	150 mA	PublishedTable



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater tap voltage	7 V	WithoutPanelLamp
RMS heater tap voltage if panel lamp fails	14 V	—
Plate voltage	110 V	ClassA
Screen voltage	110 V	ClassA
Control-grid voltage	-7.5 V	ClassA
Zero-signal plate current	49 mA	ClassA
Maximum-signal plate current	50 mA	ClassA
Maximum-signal screen current	8.5 mA	ClassA
Load resistance	2500 ohm	ClassA
Power output	1.9 W	ClassA

TUBE TINKER

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