

ELECTRONIC TUBE REFERENCE

3AF4

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

UHF television-service triode for amplifier and oscillator applications in television tuner circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7DK	BASE PINS	7
NOMINAL HEATER	3.15 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7DK - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	2100 Ω
TRANSCONDUCTANCE	0.0065 S
AMPLIFICATION FACTOR	13.5
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM HEATER-CATHODE VOLTAGE	50 V
<i>UHF oscillator ratings.</i>	

UHF television-service triode for amplifier and oscillator applications.



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 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to plate capacitance	1.9 pF	—
Grid to cathode and heater capacitance	2.2 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	UHF Oscillator
Plate dissipation	2.5 W	UHF Oscillator
Plate voltage	80 V	UHF Oscillator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6500 μ S	UHF Oscillator
Amplification factor	13.5	UHF Oscillator
Plate resistance	2100 ohm	UHF Oscillator



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
NECTIONS TO THE PLATE AND GRID. ELECTRICALLY. THE	3 A	Oscillator NECTIONS TO THE PLATE AND GRID. ELECTRICALLY. THE 3AF4 IS IDENTICAL TO THE 3A F4A
NECTIONS TO THE PLATE AND GRID. ELECTRICALLY. THE	4 A	Oscillator NECTIONS TO THE PLATE AND GRID. ELECTRICALLY. THE 3AF4 IS IDENTICAL TO THE 3A F4A
PLATE VOLTAGE	150 V	Oscillator PLATE VOLTAGE 150 VOLTS
NEGATIVE GRID VOLTAGE	50 V	Oscillator NEGATIVE GRID VOLTAGE 50 VOLTS
PLATE DISSIPATION	2.5 W	Oscillator PLATE DISSIPATION 2.5 WATTS
GRID CURRENT	2 mA	Oscillator GRID CURRENT 2 mA
CATHODE CURRENT	24 mA	Oscillator CATHODE CURRENT 24 mA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID TO PLATE	1.9 pF	Capacitances GRID TO PLATE 1.9 pf
GRID TO CATHODE AND HEATER	2.2 pF	Capacitances GRID TO CATHODE AND HEATER 2.2 pf
'LATE TO CATHODE AND HEATER	1.4 pF	Capacitances :LATE TO CATHODE AND HEATER 1.4 pf
HEATER WARM-UP TIME	11 s	Capacitances HEATER WARM-UP TIME 11 SECONDS
LIMITS OF SUPPLIED CURRENT	30 mA	Capacitances LIMITS OF SUPPLIED CURRENT 450 * 30 mA
HEATER NEGATIVE WITH RESPECT TO CATHODE	50 V	Capacitances HEATER NEGATIVE WITH RESPECT TO CATHODE 50 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	50 V	Capacitances HEATER POSITIVE WITH RESPECT TO CATHODE 50 VOLTS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	80 V	ClassA PLATE VOLTAGE 80 VOLTS
CATHODE RESISTOR	150 ohm	ClassA CATHODE RESISTOR 150 OHMS
PLATE CURRENT	17.5 mA	ClassA PLATE CURRENT 17.5 mA
PLATE RESISTANCE APPRO X	2.1 ohm	ClassA PLATE RESISTANCE APPRO X. 2.100 OHMS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	100 V	ClassA PLATE VOLTAGE 100 VOLTS
GRID RESISTOR	10 ohm	ClassA GRID RESISTOR 10.000 OHMS
PLATE CURRENT	17 mA	ClassA PLATE CURRENT 17 mA

TUBE TINKER

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