

ELECTRONIC TUBE REFERENCE

50FK5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

High-transconductance audio power pentode for transformerless equipment, providing about 1.2 W from a 110 V supply.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CV	BASE PINS	7
NOMINAL HEATER	50 V / 100 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7CV - 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 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – G1	A	G1 – Control Grid	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	14000 Ω
TRANSCONDUCTANCE	0.0128 S
MAXIMUM PLATE VOLTAGE	160 V
MAXIMUM SCREEN VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	5.5 W
MAXIMUM SCREEN DISSIPATION	1.75 W
<i>Promoted from published ratings/characteristics tables; additional published values retained in TUBE_SECTION_PARAMETER.</i>	

Audio-output power pentode. The supplied datasheet provides maximum ratings and representative Class A operating characteristics for receiver/audio output 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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	50 V	—
Heater current	100 mA	—
Plate supply voltage	110 V	ClassA1
Screen supply voltage	115 V	ClassA1
Maximum signal power output	1.2 W	ClassA1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.66 pF	—
Input capacitance	17 pF	—
Output capacitance	9 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
Typical screen voltage	115 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-signal plate current	32 mA	ClassA
Load resistance	3000 ohm	ClassA
Maximum-signal power output	1.2 W	ClassA
Maximum plate voltage	150 V	PromotedValue
Maximum screen voltage	130 V	PromotedValue
Maximum plate dissipation	5.5 W	PromotedValue
Maximum screen dissipation	1.75 W	PromotedValue
Plate Voltage	150 V	PublishedTable
Grid #2 Input	175 W	PublishedTable
Cathode Resistor	62 ohm	PublishedTable
Peak Af Grid #1 Voltage	3 V	PublishedTable
Zero- Signal Plate Current	32 mA	PublishedTable
Max.-Signal Plate Current	32 mA	PublishedTable
Max.-Signal Grid #2 Current	12 mA	PublishedTable
Plate Resistance (Approx.)	14000 ohm	PublishedTable
Tr Ansconductance	12800 MMHOS	PublishedTable
Total Harmonic Distortion	8 %	PublishedTable
Max.-S16N Al Power Output	1.2 W	PublishedTable

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	14000 ohm	PromotedValue
Transconductance	0.0128 A/V	PromotedValue
Grid #I To Plate	0.65 pF	PublishedTable
Grid #1 To Cathode H Grid #3, Heater & Grid #2	17 pF	PublishedTable
Slate To Cathode # Grid #3, Heater 6 Grid #2	9 pF	PublishedTable