

ELECTRONIC TUBE REFERENCE

6CE5

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sharp-cutoff high-frequency pentode for compact RF and IF equipment operating to approximately 400 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BD	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7BD - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – G3	A	G3 – Suppressor 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
PIN7 – IS	A	IS – Internal Screen	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	300000 Ω
TRANSCONDUCTANCE	0.0076 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
<i>Wide-band amplifier</i>	

Sharp-cutoff pentode used as an RF or IF amplifier in compact radio equipment at frequencies up to 400 MHz.



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	6.3 V	—
Heater current	300 mA	—
Plate voltage	200 V	Typical operating conditions
Screen voltage	125 V	Typical operating conditions
Plate current	11 mA	Typical operating conditions



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	—
Input capacitance	6.5 pF	—
Output capacitance	1.9 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater warm-up time	11 s	—
Plate voltage	125 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	125 V	ClassA
Grid #1 supply voltage	-1 V	ClassA
Grid #1 resistor	1 megohm	ClassA
Plate current	11 mA	ClassA
Screen current	2.8 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1 voltage at 35 uA plate current	-5 V	—



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
rf or if amplifier at frequencies up to	400 MHz	Published in approved 6CE5 target datasheet entry; Section1
Heater Voltage (ac/dc) 3.15	6.3 V	Published in approved 6CE5 target datasheet entry; Section1
Heater Current 0.6	300 mA	Published in approved 6CE5 target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 6CE5 target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value. 0.006 0	0 V	Published in approved 6CE5 target datasheet entry; Section1
For grid-No.2 voltages up to	150 V	Published in approved 6CE5 target datasheet entry; Section1
For grid-No.2 voltages between 160 and	300 V	Published in approved 6CE5 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Internal Shield	6.5 pF	Published in approved 6CE5 target datasheet entry; Section1
Shield	1.8 pF	Published in approved 6CE5 target datasheet entry; Section1
Grid No.1 to Plate and Grid No.2	2.5 pF	Published in approved 6CE5 target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.3, and Internal Shield	3.9 pF	Published in approved 6CE5 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-Bias Resistor 820 180 100	180 Ω	Published in approved 6CE5 target datasheet entry; Section1
Plate Resistance (Appro*.) 0.009 0.6 0.5	0.8 MΩ	Published in approved 6CE5 target datasheet entry; Section1
Transconductance 4400 4900 6100	6700 μS	Published in approved 6CE5 target datasheet entry; Section1
Plate Current 8 6 4.7 8	7.6 mA	Published in approved 6CE5 target datasheet entry; Section1
Grid-No.2 Current – – 1.4 2.4	2.1 mA	Published in approved 6CE5 target datasheet entry; Section1

TUBE TINKER

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