

ELECTRONIC TUBE REFERENCE

50CA5

Power - Beam Single (NOT sweep) (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power pentode designed primarily for audio-frequency output stages of television and radio receivers operating at low plate and screen voltages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CV	BASE PINS	7
NOMINAL HEATER	50 V / 150 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 Beam Power	
PLATE RESISTANCE	15000 Ω
TRANSCONDUCTANCE	0.0092 S
MAXIMUM PLATE VOLTAGE	130 V
MAXIMUM SCREEN VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.4 W
<i>Beam pentode; second operating column used for promoted small-signal characteristics.</i>	

Beam power pentode for low plate/screen voltages. 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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	50 V	—
Heater current	150 mA	—
Plate voltage	110 V	ClassA1
Maximum signal power output	1.5 W	ClassA1;125VPlate

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.5 pF	—
Input capacitance	15 pF	—
Output capacitance	9 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	16000 ohm	110VPlate
Transconductance	8100 uS	110VPlate



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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	125 V	ClassA
Typical screen voltage	125 V	ClassA
Zero-signal plate current	37 mA	ClassA
Load resistance	4500 ohm	ClassA
Maximum-signal power output	1.5 W	ClassA
Maximum plate voltage	130 V	PromotedValue
Maximum screen voltage	130 V	PromotedValue
Maximum plate dissipation	5 W	PromotedValue
Maximum screen dissipation	1.1 W	PromotedValue
Heater Current	150 mA	PublishedTable
Grid #2 Voltage 110	125 V	PublishedTable
P Ean Af Grid #1 Voltage 4.0	4.5 V	PublishedTable
Maximum Signal Plate Current (Approx.) 31	36 mA	PublishedTable
Maximum Signal Gr Fd #2 Current (Approx.) 1.5	11 mA	PublishedTable
Total Harmonic Distortion (Approx.) 5	6 %	PublishedTable
Maximum Signal Power Output 1.1	1.5 W	PublishedTable
Eq _=	50 V	PublishedTable

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	15000 ohm	PromotedValue
Transconductance	0.0092 A/V	PromotedValue
Max 50 Volts	150 mA	PublishedTable