

ELECTRONIC TUBE REFERENCE

25CA5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Miniature beam-power pentode designed primarily for audio-frequency output stages in television and radio receivers, offering high power sensitivity at low plate and screen voltages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CV	BASE PINS	7
NOMINAL HEATER	25 V / 300 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	7 W
MAXIMUM SCREEN DISSIPATION	1.4 W
<i>Published source values promoted where applicable.</i>	

The 25CA5 is a miniature beam pentode designed primarily for audio-frequency power-output stages in television and radio receivers, with high power sensitivity at relatively low plate and screen voltages.

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	25 V	Nominal
Heater current	300 mA	Nominal
Plate voltage	110 V	ClassA; OperatingPoint1
Plate voltage	125 V	ClassA; OperatingPoint2
Screen voltage	110 V	ClassA; OperatingPoint1
Screen voltage	125 V	ClassA; OperatingPoint2
Grid 1 voltage	-4 V	ClassA; OperatingPoint1
Grid 1 voltage	-4.5 V	ClassA; OperatingPoint2
Load resistance	2500 ohm	ClassA; OperatingPoint1
Load resistance	4500 ohm	ClassA; OperatingPoint2
Maximum-signal power output	1.1 W	ClassA; OperatingPoint1
Maximum-signal power output	1.5 W	ClassA; OperatingPoint2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	16000 ohm	ClassA; OperatingPoint1
Plate resistance	15000 ohm	ClassA; OperatingPoint2
Transconductance	8100 uS	ClassA; OperatingPoint1
Transconductance	9200 uS	ClassA; OperatingPoint2
Zero-signal plate current	32 mA	ClassA; OperatingPoint1
Zero-signal plate current	37 mA	ClassA; OperatingPoint2
Zero-signal grid 2 current	3.5 mA	ClassA; OperatingPoint1
Zero-signal grid 2 current	4 mA	ClassA; OperatingPoint2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to plate	0.5 pF	Direct interelectrode capacitance
Input capacitance	15 pF	Direct interelectrode capacitance
Output capacitance	9 pF	Direct interelectrode capacitance



SOURCE DATA APPENDIX

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1-to-plate capacitance	0.5 pF	WholeTube
Input capacitance	15 pF	WholeTube
Output capacitance	9 pF	WholeTube

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	130 V	WholeTube
Maximum screen voltage	130 V	WholeTube
Maximum plate dissipation	5 W	WholeTube
Maximum screen dissipation	1.4 W	WholeTube
Plate resistance	16000 ohm	ClassA1
Transconductance	5200 μS	ClassA1

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

