

ELECTRONIC TUBE REFERENCE

25C5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube designed for the audio-output stage of compact AC/DC radio receivers, delivering roughly two to 2.5 watts in Class-A service.

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	10000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	135 V
MAXIMUM SCREEN VOLTAGE	117 V
MAXIMUM PLATE DISSIPATION	5.5 W
MAXIMUM SCREEN DISSIPATION	1.25 W
<i>Shared family ratings and Class A characteristics promoted; heater-specific differences remain at tube level.</i>	

Beam power tube for the audio output stage of compact AC/DC radio receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RCA	1.25 W	RCA-25C5 is a beam power tube of the 7-pin GRID-NO.2 INPUT. + v v + v « .« 1.25 max. watts
to cathode	200 V	to cathode 200* max. volts
amplifier service, a single	25	amplifier service, a single 25C5 operated with a
Flate voltage	120 V	Flate voltage. 120 volts
plate voltage of	2 V	plate voltage of 120 volts, and a grid-No.2
Grid-No	110 V	Grid-No.2 voltage. 110 volts
voltage of	-8 V	voltage of 110 volts, can deliver a maximum sig-Grid-No.1 voltage. -8 volts
nal power output of	8 W	nal power output of 2.3 watts. Peak AF Grid-No.1 voltage. 8 volts
Zero-sSignal Plate Current	49 mA	Zero-sSignal Plate Current. 49 ma
GENERAL DATA Max.-Signal Plate Current	50 mA	GENERAL DATA Max.—Signal Plate Current. 50 ma
Zero-Signal Grid-No	2 mA	Zero-Signal Grid-No.2 current. y ma
Max.-Signal Grid-No	8.5 mA	Max.-Signal Grid-No.2 Current. P 8.5 ma
Max.-Signal Power Output	2.3 W	Max.-Signal Power Output 2.3 watts
heater, and grid No	13	heater, and grid No.2. . . + . . . 13 puuf

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater, for Unipotential cCathode: Plate Resistance (Approx.)	10000 ohm	Heater, for Unipotential cCathode: Plate Resistance (Approx.) 10000 ohms

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage (AC or DC} .« + « « v v «	7500 V	voltage (AC or DC} .« + « « v v « . . 25 volts Transconductance 7500 umhos
Current. . . . e e e	2500 A	Current. . . . e e e 0.3 amp Load Resistance. e 2500 ohms



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	120 V	ClassA
Screen voltage	110 V	ClassA
Grid 1 voltage	-8 V	ClassA
Load resistance	2500 ohm	ClassA
Total harmonic distortion	10 %	ClassA
Maximum-signal power output	2.3 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-signal plate current	49 mA	ClassA
Plate resistance	10000 ohm	ClassA
Transconductance	7500 uS	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to plate	0.6 pF	Direct interelectrode capacitance
Input capacitance	13 pF	Direct interelectrode capacitance

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output capacitance	8.5 pF	Direct interelectrode capacitance


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	120 V	ClassA
Plate current	49 mA	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	10000 Ohm	—
Transconductance	7500 uS	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	25 V	—
Heater Current	300 mA	—
Grid-Plate Capacitance	0.6 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	13 pF	—
Output Capacitance	8.5 pF	—
Plate Resistance	10000 ohm	—
Transconductance	7500 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	135 V	—
Maximum Screen Voltage	117 V	—
Maximum Plate Dissipation	6 W	—
Maximum Screen Dissipation	1.25 W	—
Plate Voltage	120 V	ClassA
Screen Voltage	110 V	ClassA
Grid Voltage	-8 V	ClassA
Load Resistance	2500 ohm	ClassA
Power Output	2.3 W	ClassA
Total Harmonic Distortion	10 percent	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 3 of 4

SOURCE PDF

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
Plate voltage	110 V	ClassA
Grid #2 voltage	110 V	ClassA
Peak AF grid #1 voltage	8 V	ClassA
Zero-signal plate current	43 mA	ClassA
Zero-signal grid #2 current	4 mA	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-signal power output	2.5 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	10000 ohm	ClassA
Transconductance	5500 uS	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.6 pF	—
Output capacitance	8.5 pF	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	110 V	ClassA
Screen Voltage	110 V	ClassA
Plate Current	49 mA	ClassA
Screen Current	4 mA	ClassA
Load Resistance	2500 ohm	ClassA
Power Output	1.9 W	ClassA
Total Harmonic Distortion	9 %	ClassA


SOURCE DATA APPENDIX

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	25 V	Nominal heater rating from supplied sheet
Heater current	300 mA	Nominal heater rating from supplied sheet
Voltage	25	Published 25C5 datasheet value
Current	0.3	Published 25C5 datasheet value
Plate Voltage	120	Published 25C5 datasheet value
Grid-No.2 Voltage	110	Published 25C5 datasheet value
Grid-No.1 Voltage	-8	Published 25C5 datasheet value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	135	Published 25C5 datasheet value
GRID-No.2 (SCREEN-GRID) VOLTAGE	117	Published 25C5 datasheet value
PLATE DISSIPATION	6	Published 25C5 datasheet value
Maximum plate voltage	135 V	PublishedOnSupplied25C5
Maximum screen-grid voltage	117 V	PublishedOnSupplied25C5
Maximum plate dissipation	6 W	PublishedOnSupplied25C5
Maximum screen-grid dissipation	1.25 W	PublishedOnSupplied25C5



SOURCE DATA APPENDIX

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak value	200 V	MaximumRating;PublishedValue1
Peak value	200 V	MaximumRating;PublishedValue2
Average value	100 V	MaximumRating;PublishedValue1
Average value	100 V	MaximumRating;PublishedValue2
Plate Voltage	150 V	MaximumRating
Grid-No	2 V	MaximumRating;PublishedValue1
Grid-No	130 V	MaximumRating;PublishedValue2
Grid-No	1 V	MaximumRating;PublishedValue1
Grid-No	0 V	MaximumRating;PublishedValue2
Plate Dissipation	7 W	MaximumRating

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.] to Plate	0.6 pF	Capacitance
Grid No.l to Cathode, Heater. Grid No	2 pF	Capacitance;PublishedValue1
Grid No.l to Cathode, Heater. Grid No	3 pF	Capacitance;PublishedValue2
Grid No.l to Cathode, Heater. Grid No	13 pF	Capacitance;PublishedValue3
Plate to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Plate to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	8.5 pF	Capacitance;PublishedValue3