

ELECTRONIC TUBE REFERENCE

25L6

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power output tube designed for low-voltage Class-A audio amplifier service in AC/DC receiving equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7AC	BASE PINS	—
NOMINAL HEATER	25 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7AC - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	—	—	NC · verified
PIN2 – Pin 2	—	H – Heater	CONNECTED · verified
PIN3 – Pin 3	A	P – Plate (Anode)	CONNECTED · verified
PIN4 – Pin 4	A	G2 – Screen Grid	CONNECTED · verified
PIN5 – Pin 5	A	G1 – Control Grid	CONNECTED · verified
PIN7 – Pin 7	—	H – Heater	CONNECTED · verified
PIN8 – Pin 8	A	BP – Beam-Forming Plate	CONNECTED · verified
PIN8 – Pin 8	A	K – Cathode	CONNECTED · verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	30000 Ω
TRANSCONDUCTANCE	0.0095 S
AMPLIFICATION FACTOR	82
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM SCREEN VOLTAGE	117 V
Beam-power amplifier section.	

Beam power output tube for AC/DC audio amplifier service.

SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	110 V	Published ratings
Maximum Screen Voltage	110 V	Published ratings
Plate Voltage	110 V	ClassA; Column1
Plate Voltage	110 V	ClassA; Column2
Screen Voltage	110 V	ClassA; Column1
Screen Voltage	110 V	ClassA; Column2
Grid Bias	-7.5 V	ClassA; Column1
Grid Bias	-7.5 V	ClassA; Column2
Signal Peak Voltage	7.5 V	ClassA; Column1
Signal Peak Voltage	7.6 V	ClassA; Column2
Amplification Factor	82	ClassA; Column1
Amplification Factor	82	ClassA; Column2
Plate Resistance {approx	10000 ohm	ClassA; Column1
Plate Resistance {approx	10000 ohm	ClassA; Column2
Transconductance	8200 uS	ClassA; Column1
Transconductance	8200 uS	ClassA; Column2
No-Signal Plate Current	49 mA	ClassA; Column1
No-Signal Plate Current	49 mA	ClassA; Column2
Maximum-Signal Plate Current	54 mA	ClassA; Column1
Maximum-Signal Plate Current	50 mA	ClassA; Column2
No-Signal Screen Current	4 mA	ClassA; Column1
No-Signal Screen Current	4 mA	ClassA; Column2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal Screen Current	9 mA	ClassA; Column1
Maximum-Signal Screen Current	11 mA	ClassA; Column2
Load Resistance	1500 ohm	ClassA; Column1
Load Resistance	2000 ohm	ClassA; Column2
Total Harmonic Distortion	11 %	ClassA; Column1
Total Harmonic Distortion	10 %	ClassA; Column2
Second Harmonic Distortion	10 %	ClassA; Column1
Second Harmonic Distortion	3.5 %	ClassA; Column2
Third Harmonic Distortion	4 %	ClassA; Column1
Third Harmonic Distortion	8.5 %	ClassA; Column2
Power Output	2.1 W	ClassA; Column1
Power Output	2.2 W	ClassA; Column2
The voltage between heater and cathode should not exceed	90 V	ClassA



SOURCE OPERATING CONDITIONS

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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
The	7	The 25L6 is a power-amplifier tube MO, 70
HEeATER VOLTAGE (A. C.or D.C).....ooinnn	25 V	HEeATER VOLTAGE (A. C.or D.C).....ooinnn 25.0 Volts
HEATER CURRENT . .ivivvninonrnnnnnanocasonens	300 mA	HEATER CURRENT . .ivivvninonrnnnnnanocasonens 0.3 Ampere
PLATE VOLTAGE cocvvvnnuunnen	110 V	PLATE VOLTAGE cocvvvnnuunnen. . 110 110 Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ScREEN VOLTAGE (Grid No	110 V	ScREEN VOLTAGE (Grid No. 2)..... 110 110 Volts
GRID VOLTAGE (Grid No	-17.5 V	GRID VOLTAGE (Grid No. 1)..... -7.5 -17.5 Volts
PEAR A'F GRID VOLTAGE. ... vvvvnnnnn	7.5 V	PEAR A'F GRID VOLTAGE. ... vvvvnnnnn... 7.5 7.5 Volts
ZERO-SIGNAL PLATE CURRENT	49	ZERO-SIGNAL PLATE CURRENT..... 49 49 Milliamperes
MAX.-SIGNAL PLATE CURRENT	50	MAX.-SIGNAL PLATE CURRENT..... 54 50 Milliamperes
ZERO-SIGNAL SCREEN CURRENT	4	ZERO-SIGNAL SCREEN CURRENT..... 4 4 Milliamperes
MAX.-SIGNAL SCREEN CURRENT	11	MAX.-SIGNAL SCREEN CURRENT..... 9 11 Milliamperes
PowER OUTPUT ccoivvvinnnnnn	2.2 W	Power OUTPUT ccoivvvinnnnnn. 2.1 2.2 Watts

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE RESISTANCE (Approx.)	10000 ohm	PLATE RESISTANCE (Approx.)..... 10000 10000 Ohms
LoAD RESISTANCE	2000 ohm	LoAD RESISTANCE-.. 1500 2000 Ohms
0.5 megohm. A family of plate characteristic curves is given	0.5	0.5 megohm. A family of plate characteristic curves is given on the preceding page



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1950 Sylvania

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1950 SYLVANIA

Section 1 · Beam Power

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Audio power output	—

SOURCE OPERATING CONDITIONS

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195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	16 pF	—
Output capacitance	13.5 pF	—
Grid-to-plate capacitance	0.3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	ClassA
Screen-grid voltage	110 V	ClassA
Grid voltage	-8 V	ClassA
Plate current	50 mA	ClassA
Screen-grid current	2 mA	ClassA
Load resistance	3000 ohm	ClassA
Power output	4.3 W	ClassA
Plate voltage	110 V	ClassA;LowVoltage
Screen-grid voltage	110 V	ClassA;LowVoltage
Grid voltage	-7.5 V	ClassA;LowVoltage
Plate current	49 mA	ClassA;LowVoltage
Screen-grid current	4 mA	ClassA;LowVoltage
Load resistance	2000 ohm	ClassA;LowVoltage
Power output	2.1 W	ClassA;LowVoltage

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	30000 ohm	ClassA;PlateVoltage=200V
Transconductance	9500 uS	ClassA;PlateVoltage=200V
Plate resistance	13000 ohm	ClassA;LowVoltage
Transconductance	9000 uS	ClassA;LowVoltage

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