



ELECTRONIC TUBE REFERENCE

7581A

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Glass-octal beam-power tube designed for audio-frequency power amplification, including push-pull Class-A and Class-AB output service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	33000 Ω
TRANSCONDUCTANCE	0.0052 S
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	35 W
MAXIMUM SCREEN DISSIPATION	5 W
<i>Promoted only from clearly labeled printed ratings/characteristics; specialized and operating data retained in parameter rows.</i>	

Glass-octal beam power tube for audio-frequency power-amplifier applications, including push-pull Class A and AB service.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TriodeConnectionAmplificationFactor	8	TriodeConnection
TriodeConnectionPlateResistance	1700 ohm	TriodeConnection
TriodeConnectionTransconductance	4700 uS	TriodeConnection



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 4 of 4

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1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid	0.6 pf	PublishedTable
Voltage	0.6 VOLTS	PublishedTable
Heater	200 VOLTS	PublishedTable
Plate	45 VOLTS	PublishedTable
Screen	45 VOLTS	PublishedTable
Plate	35 WATTS	PublishedTable
Screen	5 WATTS	PublishedTable
With Cathode	5 MEGOHMS	PublishedTable
Plate	250 voLTs	PublishedTable

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1 Voltage	-14 voLTs	PublishedTable
Plate	22500 OHMS	PublishedTable
Plate	72 MA	PublishedTable
Screen	5 MA	PublishedTable
Plate	25 VOLTS	PublishedTable
Grid	-2 VOLTS	PublishedTable
Peak	2 VOLTS	PublishedTable
Plate	1700 OHMS	PublishedTable
Zero-Signal Plate Current	4 MA	PublishedTable
Total Harmonic Distortion S	5 PERCENT	PublishedTable
Plate	35 VOLTS	PublishedTable

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal Plate Current	44 MA	PublishedTable
Maximum -Signal Power Output	4 WATTS	PublishedTable



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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
Heater Voltage, ACor DC*. 63=06 Volts Base-B6-148, Short Medium- Shell Octal 6-Pin Micanol	6 Volts	Published datasheet; semantic line recovery
Grid-Number 1 to Plate: (gl top).....0.6 pf Maximum Over-all Length. 417 Inches	0.6 pf	Published datasheet; semantic line recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output: pto (h+k- +b.p.+g2)..... 6.5 pf	6.5 pf	Published datasheet; semantic line recovery
Plate Voltage. 500 450 Volts	450 Volts	Published datasheet; semantic line recovery
spect to Cathode. 200 200 Volts	200 Volts	Published datasheet; semantic line recovery
Plate Dissipation. 35 35 Watts spect to Cathode. 200 200 Volts	35 Watts	Published datasheet; semantic line recovery
Plate Dissipation. 35 35 Watts spect to Cathode. 200 200 Volts	200 Volts	Published datasheet; semantic line recovery
Screen Dissipation. 5.0 Watts Grid-Number 1 Circuit Resistance	5 Watts	Published datasheet; semantic line recovery
Heater-Cathode Voltage With Fixed Bias. 0.1 0.1 Megohms	0.1 Megohms	Published datasheet; semantic line recovery
With Cathode Bias. 0.5 0.5 Megohms	0.5 Megohms	Published datasheet; semantic line recovery
Plate Voltage 70 Volts	70 Volts	Published datasheet; semantic line recovery
Screen Voltage L 300 Volts	300 Volts	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. e Volts	1 Volt	Published datasheet; semantic line recovery
Plate Current. 210 Milliamperes	210 Milliamperes	Published datasheet; semantic line recovery
Screen Current. 25 Milliamperes	25 Milliamperes	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. Volts	1 Volt	Published datasheet; semantic line recovery
Peak AF Grid-Number 1 Voltage. Volts	1 Volt	Published datasheet; semantic line recovery
Plate Voltage 250 300 350 Volts	350 Volts	Published datasheet; semantic line recovery
Screen Voltage. 250 200 250 Volts	250 Volts	Published datasheet; semantic line recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-Number 1 Voltage. -14 - 12.5 -18 Volts	1 Volt	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. -14 - 12.5 -18 Volts	18 Volts	Published datasheet; semantic line recovery
Peak AF Grid-Number 1 Voltage 14 12.5 18 Volts	1 Volt	Published datasheet; semantic line recovery
Peak AF Grid-Number 1 Voltage 14 12.5 18 Volts	18 Volts	Published datasheet; semantic line recovery
Plate Resistance, approximate. 22500 35000 33000 Ohms	33000 Ohms	Published datasheet; semantic line recovery
Transconductance 6000 5300 5200 Micromhos	5200 Micromhos	Published datasheet; semantic line recovery
Zero-Signal Plate Current. ... 72 48 54 Milliamperes	54 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Plate Current. 79 55 66 Milliamperes	66 Milliamperes	Published datasheet; semantic line recovery
Zero-Signal Screen Current. ... 5.0 2.5 2.5 Milliamperes	2.5 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Screen Current. 7.3 4.7 7.0 Milliamperes	7 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Power Output. ... 6.5 6.5 10.8 Watts	10.8 Watts	Published datasheet; semantic line recovery
Plate Voltage 250 270 Volts	270 Volts	Published datasheet; semantic line recovery
Screen Voltage. . . . 250 270 Volts	270 Volts	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. -16 -17.5 Volts	1 Volt	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. -16 -17.5 Volts	17.5 Volts	Published datasheet; semantic line recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak AF Grid-to-Grid Voltage 32 35 Volts	35 Volts	Published datasheet; semantic line recovery
Zero-Signal Plate Current. 120 134 Milliamperes	134 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Plate Current. 140 155 Milliamperes	155 Milliamperes	Published datasheet; semantic line recovery
Zero-Signal Screen Current. 10 11 Milliamperes	11 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Screen Current. . . . L 16 17 Milliamperes	17 Milliamperes	Published datasheet; semantic line recovery
Effective Load Resistance, Plate-to-Plate.. 5000 5000 Ohms	5000 Ohms	Published datasheet; semantic line recovery
Maximum-Signal Power Output. 14.5 17.5 Watts	17.5 Watts	Published datasheet; semantic line recovery
Plate Voltage 360 360 450 Volts	450 Volts	Published datasheet; semantic line recovery
Screen Voltage. 270 270 400 Volts	400 Volts	Published datasheet; semantic line recovery
Grid-Number 1 Voltage -22.5 -22.5 -37 Volts	1 Volt	Published datasheet; semantic line recovery
Grid-Number 1 Voltage -22.5 -22.5 -37 Volts	37 Volts	Published datasheet; semantic line recovery
Peak AF Grid-to-Grid Voltage 45 45 70 Volts	70 Volts	Published datasheet; semantic line recovery
Zero-Signal Plate Current. 88 88 116 Milliamperes	116 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Plate Currentf. 132 140 210 Milliamperes	210 Milliamperes	Published datasheet; semantic line recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-Signal Screen Current. ... 5.0 5.0 5.6 Milliamperes	5.6 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Screen Current. 15 11 22 Milliamperes	22 Milliamperes	Published datasheet; semantic line recovery
Effective Load Resistance, Plate-to-Plate. 6600 3800 5600 Ohms	5600 Ohms	Published datasheet; semantic line recovery
Maximum-Signal Power Output. ... 26.5 18 55 Watts	55 Watts	Published datasheet; semantic line recovery
Plate Voltage e 360 360 Volts	360 Volts	Published datasheet; semantic line recovery
Screen Voltage. 225 270 Volts	270 Volts	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. e -18 -22.5 Volts	1 Volt	Published datasheet; semantic line recovery
Grid-Number 1 Voltage. e -18 -22.5 Volts	22.5 Volts	Published datasheet; semantic line recovery
Peak AF Grid-to-Grid Voltage 52 72 Volts	72 Volts	Published datasheet; semantic line recovery
Zero-Signal Plate Current. .. . e 78 88 Milliamperes	88 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Plate Current... 142 205 Milliamperes	205 Milliamperes	Published datasheet; semantic line recovery
Zero-Signal Screen Current. ... 3.5 5.0 Milliamperes	5 Milliamperes	Published datasheet; semantic line recovery
Maximum-Signal Screen Current. 11 16 Milliamperes	16 Milliamperes	Published datasheet; semantic line recovery
Effective Load Resistance, Plate-to-Plate. 6000 3800 Ohms	3800 Ohms	Published datasheet; semantic line recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
1 Heater current of o bogey tube at Ef =6.3 volts.	6.3 volts	Published datasheet; semantic line recovery
€ The maximum screen voltage rating is 500 volts in push-pull circuits where the screen of each tube is connected to a	500 volts	Published datasheet; semantic line recovery



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 Heater-Cathode Voltage	200 V	AbsoluteValue
Typical Plate Voltage	250 V	ClassA;PentodeConnection
Typical Screen Voltage	250 V	ClassA;PentodeConnection
Plate Current	72 mA	ClassA;PentodeConnection
Screen Current	5 mA	ClassA;PentodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	22500 ohm	ClassA;PentodeConnection
Transconductance	6000 uS	ClassA;PentodeConnection
Triode Amplification Factor	8	TriodeConnection
Triode Plate Resistance	1700 ohm	TriodeConnection
Triode Transconductance	4700 uS	TriodeConnection



SOURCE DATA APPENDIX

2026 Tungsol Rebrand

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

2026 TUNGSOL REBRAND

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	—	HI-FI audio output; Class A/push-pull data published

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