



ELECTRONIC TUBE REFERENCE

5924

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Forced-air-cooled counterpart to the 5923 high-power RF-heating triode. Rated for 6 kW plate dissipation and 6 kV plate voltage, with published operation producing roughly 6.9 kW RF output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / 33 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.017 S
AMPLIFICATION FACTOR	32
MAXIMUM PLATE VOLTAGE	6000 V
MAXIMUM PLATE DISSIPATION	6000 W
MAXIMUM GRID DISSIPATION	120 W
MAXIMUM CATHODE CURRENT	10 A
<i>Published maximum ratings and characteristics audited; remaining values retained densely in parameter table.</i>	

5924 is a Triode device. Forced-air-cooled version of type 5923.



SOURCE OPERATING CONDITIONS

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1953 Amperex

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

1953 AMPEREX

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	32	Published source value

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling method	forced air	Published source value



SOURCE OPERATING CONDITIONS

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1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	32	—
Maximum frequency	75 MHz	—
Grid-to-plate capacitance	110 pF	—
Grid-to-filament capacitance	16 pF	—
Plate-to-filament capacitance	0.3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	6000 W	—
Plate voltage	6000 V	ClassC
Plate current	1.5 A	ClassC
Power output	6900 W	ClassC
Grid voltage	-400 V	ClassC
Grid current	310 mA	ClassC



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1962 ITT

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

1962 ITT

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage (Note [1])	1 V	Filament voltage (Note 1) 12,6 v
Filament voltage (Note [2])	126 V	Filament voltage (Note 1) 12,6 v
Filament current, nominal	33 A	Filament current, nominal 33 A
of supply voltage of + [1]	5 V	of supply voltage of +5% to -10%.
of supply voltage of + [2]	-10 V	of supply voltage of +5% to -10%.
Mutual conductance %Measured at Vu = [1]	4 mA/V	Mutual conductance %Measured at Vu = 4kV} 17 mA/V
Mutual conductance %Measured at Vu = [2]	17 mA/V	Mutual conductance %Measured at Vu = 4kV} 17 mA/V
Grid to anode	11	Grid to anode 11 pF
Grid to filament	16	Grid to filament 16 pF
Anode to filament G,	3	Anode to filament G,3 pF
Direct anode voltage [1]	5 kV	Direct anode voltage 5 4 kv
Direct anode voltage [2]	4 kV	Direct anode voltage 5 4 kv
Direct anode current [1]	19 A	Direct anode current 1,9 1,6 A

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct anode current [2]	16 A	Direct anode current 1,9 1,6 A
Direct anode dissipation ' [1]	5 kW	Direct anode dissipation ' 5 4 kW
Direct anode dissipation ' [2]	4 kW	Direct anode dissipation ' 5 4 kW
Direct grid dissipation [1]	120 W	Direct grid dissipation 120 120 W
Direct grid dissipation [2]	120 W	Direct grid dissipation 120 120 W
Negative grid bias [1]	1 kV	Negative grid bias 1 1 kV
Negative grid bias [2]	1 kV	Negative grid bias 1 1 kV
Peak cathode current [1]	10 A	Peak cathode current 10 a,1 A
Peak cathode current [2]	1 A	Peak cathode current 10 a,1 A
Input power, average [1]	95 kW	Input power, average 9,5 6,5 kW
Input power, average [2]	65 kW	Input power, average 9,5 6,5 kW
Direct anode voltage [1]	5 kV	Direct anode voltage 5 4 kV
Direct anode voltage [2]	4 kV	Direct anode voltage 5 4 kV
R.F. input voltage (grid-to-grid peak) [1]	1 kV	R.F. input voltage (grid-to-grid peak) 1 1 kV
R.F. input voltage (grid-to-grid peak) [2]	1 kV	R.F. input voltage (grid-to-grid peak) 1 1 kV
Power output, synch [1]	9 kW	Power output, synch. 9 6 kW
Power output, synch [2]	6 kW	Power output, synch. 9 6 kW
Power in load, synch, [1]	63 kW	Power in load, synch, 6,3 4,2 kW
Power in load, synch, [2]	42 kW	Power in load, synch, 6,3 4,2 kW
Drive power [1]	250 W	Drive power 250 350 to 450 W
Drive power [2]	350 W	Drive power 250 350 to 450 W
Drive power [3]	450 W	Drive power 250 350 to 450 W
Direct snode voltage	5 kV	Direct snode voltage 5 kV
Direct snode current	19 A	Direct snode current 1,9 A
Direct anode dissipation	5 kW	Direct anode dissipation 5 kW
Direct grid dissipation	120 W	Direct grid dissipation 120 W
Negative grid bias	1 kV	Negative grid bias 1 kV
Peak cathode current	10 A	Peak cathode current 10 A
Input power, average	95 kW	Input power, average 9,5 kW

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency for above ratings	75 MHz	Frequency for above ratings 75 MHz
frequency Up to	75 MHz	frequency Up to 75 MHz
Direct enode voltage	5 kV	Direct enode voltage 5 kV
R.F. input voltege, grid-to--grid peak	1 kV	R.F. input voltege, grid-to--grid peak 1 kV
Power output, white	9 kW	Power output, white 9 kW
Power in load, white	63 kW	Power in load, white 6,3 kW
Drive power	250 W	Drive power 250 w
Direct anode voltege [1]	5 kV	Direct anode voltege 5 4 kV
Direct anode voltege [2]	4 kV	Direct anode voltege 5 4 kV
Direct anode dissipation [1]	5 kW	Direct anode dissipation 5 4 kW
Direct anode dissipation [2]	4 kW	Direct anode dissipation 5 4 kW
Peak cathode current [1]	10 A	Peak cathode current 10 8,1 A
Peak cathode current [2]	81 A	Peak cathode current 10 8,1 A
Input power, average d.c [1]	95 kW	Input power, average d.c. 9,5 6,5 kW
Input power, average d.c [2]	65 kW	Input power, average d.c. 9,5 6,5 kW
Direct grid voltage [1]	-200 V	Direct grid voltage -200 ~150 v
Direct grid voltage [2]	150 V	Direct grid voltage -200 ~150 v
Power output, synch, [1]	9 kW	Power output, synch, 9 6 kW
Power output, synch, [2]	6 kW	Power output, synch, 9 6 kW
Power in load, synch [1]	63 kW	Power in load, synch. 6,3 4,2 . kW
Power in load, synch [2]	42 kW	Power in load, synch. 6,3 4,2 . kW
Drive power, synch [1]	250 W	Drive power, synch. 250 350 to 450 W
Drive power, synch [2]	350 W	Drive power, synch. 250 350 to 450 W
Drive power, synch [3]	450 W	Drive power, synch. 250 350 to 450 W
Direct anode voltage	6 kV	Direct anode voltage 6 kV
Direct anode current	15 A	Direct anode current 1,5
Direct grid dissipation	120 W	Direct grid dissipation 120
Direct grid current	350 mA	Direct grid current 350 mA
Negative grid bias	1 kV	Negative grid bias 1 kV
Peak cathode current	85 A	Peak cathode current 8,5
Typical Operating Conditions (Frequency	7 MHz	Typical Operating Conditions (Frequency 7SMHz)

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct anode voltage [1]	4 kV	Direct anode voltage 4 5 6 kV
Direct anode voltage [2]	5 kV	Direct anode voltage 4 5 6 kV
Direct anode voltage [3]	6 kV	Direct anode voltage 4 5 6 kV
Direct grid voltage [1]	-200 V	Direct grid voltage -200 -300 ~400
Direct grid voltage [2]	-300 V	Direct grid voltage -200 -300 ~400
Direct grid voltage [3]	400 V	Direct grid voltage -200 -300 ~400
Direct anode current [1]	137 A	Direct anode current 1,37 1,5 1,5



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	1.5 A	RFPower
RF output power	6900 W	RFPower
Grid voltage	-400 V	RFPower
Grid current	310 mA	RFPower

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	11 pF	—
Grid-to-filament capacitance	6 pF	—
Plate-to-filament capacitance	0.3 pF	—

TUBE TINKER

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

