



ELECTRONIC TUBE REFERENCE

5604

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Very-high-power transmitting triode with an exceptionally heavy filament for professional RF power service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	11 V / 176 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	12500 V
MAXIMUM PLATE DISSIPATION	10000 W
MAXIMUM CATHODE CURRENT	2.5 A
Maximum ratings and general characteristics promoted from the printed service tables.	

5604 is listed in the supplied Amperex material as a high-power transmitting triode. Published ratings and operating characteristics were captured from the supplied table.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	12000 V	RFPowerAmplifier
Plate current	2.5 A	RFPowerAmplifier
Power output	22500 W	RFPowerAmplifier
Control-grid voltage	-1170 V	RFPowerAmplifier
Grid current	220 mA	RFPowerAmplifier
Maximum frequency at full input	22.5 MHz	RFPowerAmplifier
Maximum plate dissipation	10000 W	RFPowerAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	19	RFPowerAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	25 pF	Section1
Grid-to-filament capacitance	30 pF	Section1
Plate-to-filament capacitance	1.25 pF	Section1



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	11 V	TransmittingService
Filament current	176 A	TransmittingService
Amplification factor	19	TransmittingService

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	10000 W	TransmittingService
Plate voltage	12000 V	TransmittingService
Plate current	2.5 A	TransmittingService
Power output	22500 W	TransmittingService
Grid bias	-1170 V	TransmittingService
Grid current	220 mA	TransmittingService
Maximum frequency	22.5 MHz	FullInputWatts



SOURCE DATA APPENDIX

1971 Machlette Laboratories

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

1971 MACHLETTE LABORATORIES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	20	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC plate voltage	12500 V	—
Maximum plate dissipation	10000 W	—
Maximum plate/cathode current	2.5 A	—

TUBE TINKER

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