



ELECTRONIC TUBE REFERENCE

6AQ8

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

High-mu twin triode designed for RF amplification and self-oscillating mixer service in FM/AM receivers, combining front-end gain and frequency conversion in one envelope.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	6.3 V / 435 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	9700 Ω
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	57
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	15 mA
Two similar triode sections; represented once under identical-section compression.	

SECTION2 Triode	
PLATE RESISTANCE	9700 Ω
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	57
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Second physical triode section; added to align rows with SectionCount.</i>	

High-mu twin triode used as RF amplifier and self-oscillating mixer in FM/AM radio receivers.



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	530 V	Published Amperex table
Mixer plate current	5.2 mA	Published Amperex table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	9700 ohm	Published Amperex table
Transconductance	6000 μ S	Published Amperex table
Amplification factor	57	Published Amperex table
Heater/filament voltage	6.3 V	Published Amperex table
Heater/filament current	435 mA	Published Amperex table
Mixer plate resistance	2200 ohm	Published Amperex table
Mixer transconductance	2300 μ S	Published Amperex table



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Rogers

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

1959 ROGERS

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF amplifier / self-oscillating mixer	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	EachSection
Control-grid voltage	-2.2 V	EachSection
Plate current	10 mA	EachSection
Amplification factor	57 ratio	EachSection
Transconductance	6000 uS	EachSection
Equivalent noise resistance	500 Ohm	RFAmplifier
Input resistance	6000 Ohm	RFAmplifier;f=100MHz

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	RFAmplifier
Plate voltage	240 V	RFAmplifier
Plate current	10 mA	RFAmplifier
Transconductance	6200 uS	RFAmplifier
Plate resistance	9400 Ohm	RFAmplifier
Conversion conductance	2700 uS	SelfOscillatingMixer
Plate resistance	20000 Ohm	SelfOscillatingMixer

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3 pF	EachSection
Output capacitance	1.2 pF	EachSection
Plate-to-grid capacitance	1.6 pF	EachSection

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	435 mA	Published heater rating
Amplification factor	57	RFAmplifier
Plate resistance	9700 ohm	RFAmplifier
Transconductance	6000 μ S	RFAmplifier
Mixer plate resistance	2200 ohm	MixerSection
Mixer transconductance	2300 μ S	MixerSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RF-amplifier plate voltage	230 V	RFAmplifier
Control-grid bias	-2 V	RFAmplifier
RF-amplifier plate current	10 mA	RFAmplifier
Mixer plate voltage	190 V	MixerSection
Mixer plate current	5.2 mA	MixerSection

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc)	6.3 V	Published in approved ECC85 target datasheet entry; Section1
Heater Current	436 mA	Published in approved ECC85 target datasheet entry; Section1
Plate Supply Voltage	560 V	Published in approved ECC85 target datasheet entry; Section1
Plate Voltage	300 V	Published in approved ECC85 target datasheet entry; Section1
Grid Voltage, Negative-bias value	100 V	Published in approved ECC85 target datasheet entry; Section1
Cathode Current	15 mA	Published in approved ECC85 target datasheet entry; Section1
For either plate	2.5 W	Published in approved ECC85 target datasheet entry; Section1
For both plates with both units operating	4.5 W	Published in approved ECC85 target datasheet entry; Section1
Plate Voltage	250 V	Published in approved ECC85 target datasheet entry; Section1
Grid Voltage. Negative-bias value	2.3 V	Published in approved ECC85 target datasheet entry; Section1
Plate Current	10 mA	Published in approved ECC85 target datasheet entry; Section1
Transconductance	5900 μ S	Published in approved ECC85 target datasheet entry; Section1
Plate Supply Voltage 250	250 V	Published in approved ECC85 target datasheet entry; Section1
Plate Resistor 1800	12000 Ω	Published in approved ECC85 target datasheet entry; Section1
Grid Resistor –	-1 M Ω	Published in approved ECC85 target datasheet entry; Section1
Grid Voltage	-2 V	Published in approved ECC85 target datasheet entry; Section1
RMS Oscillator Voltage –	-3 V	Published in approved ECC85 target datasheet entry; Section1
Cathode-Bias Resistor	200 Ω	Published in approved ECC85 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.) 9700	22000 Ω	Published in approved ECC85 target datasheet entry; Section1
Input Resistance at frequency of	100 MHz	Published in approved ECC85 target datasheet entry; Section1
Input Resistance at frequency of 100 MHz 6000	15000 Ω	Published in approved ECC85 target datasheet entry; Section1
Plate Current 10	5.2 mA	Published in approved ECC85 target datasheet entry; Section1
Grid-Circuit Resistance	1 MΩ	Published in approved ECC85 target datasheet entry; Section1
Resistance between Cathode and Heater	20000 Ω	Published in approved ECC85 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate 1.6	1.5 pF	Published in approved ECC85 target datasheet entry; Section1
Cathode to Plate 0.18	0.18 pF	Published in approved ECC85 target datasheet entry; Section1
Grid to Cathode, Heater, and Internal Shield . . 3	3 pF	Published in approved ECC85 target datasheet entry; Section1
Plate to Cathode, Heater, and Internal Shield . . 1.2	1.2 pF	Published in approved ECC85 target datasheet entry; Section1

TUBE TINKER

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

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker