

ELECTRONIC TUBE REFERENCE

4ES8

Voltage - Dual Triode (similar high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Frame-grid variable-mu twin triode designed for premium television tuners, providing low-noise cascode RF amplification with remote-cutoff behavior useful for gain-controlled VHF front ends.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	4 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	2900 Ω
TRANSCONDUCTANCE	0.0123 S
AMPLIFICATION FACTOR	36
MAXIMUM PLATE VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	1.8 W
MAXIMUM CATHODE CURRENT	20 mA
Representative row for two electrically identical variable-mu triode sections.	

SECTION2 Triode	
PLATE RESISTANCE	2900 Ω
TRANSCONDUCTANCE	0.0123 S
AMPLIFICATION FACTOR	36
MAXIMUM PLATE VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	1.8 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Second physical triode section; electrically identical twin section.</i>	

4ES8 is a DualTriode device in the supplied Amperex literature. High-performance frame-grid twin triode with remote-cutoff characteristics for low-noise cascode RF service in premium television tuners.



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 voltage	90 V	LowNoiseCascodeRF; EachUnit
Grid voltage	-1.2 V	LowNoiseCascodeRF; EachUnit
Plate current	15 mA	LowNoiseCascodeRF; EachUnit

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12500 uS	EachUnit
Amplification factor	34	EachUnit
Plate resistance	2.72 kOhm	EachUnit



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	ClassA1
Grid voltage	-1.2 V	ClassA1
Plate current	15 mA	ClassA1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	2900 ohm	ClassA1
Transconductance	12300 uS	ClassA1
Amplification factor	36	ClassA1
Grid-to-cathode capacitance Section1	3.5 pF	Section1
Grid-to-plate capacitance Section1	1.9 pF	Section1
Grid-to-cathode capacitance Section2	6 pF	Section2
Grid-to-plate capacitance Section2	1.9 pF	Section2
Heater warm-up time	11 s	ControlledWarmUp

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