



ELECTRONIC TUBE REFERENCE

9AK8

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL DATA

4 SECTIONS

CONSTRUCTION

DIODE-DIODE-DIODE-
TRIODE

Three-diode/triode combination developed for television and receiver signal detection and audio amplification. Three diode sections accommodate detector and demodulator functions while the high-mu triode provides subsequent voltage gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	9.5 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
PEAK INVERSE VOLTAGE	350 V
NOMINAL OUTPUT CURRENT	10 mA
PEAK FORWARD CURRENT	75 mA
<i>Published ratings/characteristics promoted where clearly stated; repeated identical sections compressed where applicable.</i>	

SECTION2 Diode	
<i>No fixed ratings recorded.</i>	
<i>Published ratings and characteristics promoted from the supplied Rogers/Rogers Majestic source.</i>	

SECTION3 Diode

No fixed ratings recorded.

Published ratings and characteristics promoted from the supplied Rogers/Rogers Majestic source.

SECTION4 Triode

PLATE RESISTANCE	50000 Ω
TRANSCONDUCTANCE	0.0014 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	5 mA

Published ratings and characteristics promoted from the supplied Rogers/Rogers Majestic source.

The Ferranti 9AK8 combines three diode detector/demodulator sections with a triode for AF amplification in FM/AM receivers.



SOURCE OPERATING CONDITIONS

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Diode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	9.5 V	Published nominal value
Heater current	300 mA	Published nominal value
Transconductance	1500 μ S	Published operating characteristic

1953 RFT RUNDFUNK TECHNIK

Section 4 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Plate Dissipation	1 W	—



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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	9.5 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentCurrent	300 mA	—

1959 ROGERS

Section 4 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Video and audio signal detection	Television


SOURCE DATA APPENDIX

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 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	350 V	Each diode
Peak Current Diode 1	6 mA	—
Peak Current Diode 2	75 mA	—
Peak Current Diode 3	75 mA	—

1961 FERRANTI TECHNICAL HANDBOOK

Section 4 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	200 V	—
Plate Current	1 mA	—
Transconductance	1400 uS	—
Plate Resistance	50000 ohm	—
Amplification Factor	70 ratio	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Stage Gain	53 ratio	AFAmplifier

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