

ELECTRONIC TUBE REFERENCE

V99

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

General-purpose directly heated detector and amplifier triode.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4E	BASE PINS	4
NOMINAL HEATER	3.3 V / 63 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	15500 Ω
TRANSCONDUCTANCE	0.000425 S
AMPLIFICATION FACTOR	6.6
MAXIMUM PLATE VOLTAGE	120 V
Low-mu Class A triode.	

General-purpose detector and amplifier triode; French source translated to English.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	3 V	Published filament rating
Filament current	60 mA	Published filament rating
Plate resistance	15500 ohm	ClassA
Transconductance	425 μ S	ClassA
Amplification factor	6.6	ClassA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	120 V	Published datasheet rating
Plate voltage	90 V	ClassA
Control-grid bias	4.5 V	ClassA
Plate current	2.5 mA	ClassA
Biased-detector plate voltage	80 V	BiasedDetector
Biased-detector grid bias	10.5 V	BiasedDetector
Biased-detector no-signal plate current	0.2 mA	BiasedDetector
Grid-leak detector plate voltage	45 V	GridLeakDetector
Grid-leak resistance minimum	0.25 MOhm	GridLeakDetector
Grid-leak resistance maximum	5 MOhm	GridLeakDetector
Grid condenser	0.00025 μ F	GridLeakDetector

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2.5 pF	Published capacitance
Output capacitance	2.5 pF	Published capacitance
Grid-to-plate capacitance	3.3 pF	Published capacitance


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	425 μ S	Published
Amplification factor	6.6	Published
Plate resistance	15500 ohm	Published
Filament voltage	3–3.3 V	Published operating range
Filament current	60 mA–63 mA	Published operating range

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	3.3 pF	Published
Grid-to-filament capacitance	2.5 pF	Published
Plate-to-filament capacitance	2.5 pF	Published


SOURCE DATA APPENDIX

1950 Sylvania

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

1950 SYLVANIA
Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	3.15 V	—
HeaterOrFilamentCurrent	61.5 mA	—



SOURCE DATA APPENDIX

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS
Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2.5 pF	—
Output capacitance	2.5 pF	—
Grid-to-plate capacitance	3.3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	ClassA
Grid voltage	-4.5 V	ClassA
Plate current	2.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	15500 ohm	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	425 μ S	ClassA
Amplification factor	6.6	ClassA