



ELECTRONIC TUBE REFERENCE

36

Voltage Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Sharp-cutoff screen-grid tetrode intended primarily for RF voltage amplification, providing high gain with comparatively abrupt cutoff characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5E	BASE PINS	5
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
PLATE RESISTANCE	550000 Ω
TRANSCONDUCTANCE	0.00108 S
AMPLIFICATION FACTOR	595
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	90 V
Published ratings and characteristics promoted from the approved datasheet.	

36 is listed in the supplied receiving-tube handbook as a sharp-cutoff RF tetrode. The published heater/filament rating is 6.3 V at 0.3 A.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1932 Cunningham Radio Tubes

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

1932 CUNNINGHAM RADIO TUBES

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	0.01 pF	Published direct interelectrode capacitance



SOURCE OPERATING CONDITIONS

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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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published datasheet rating
Maximum screen voltage	90 V	Published datasheet rating
Plate voltage	250 V	ClassA
Screen voltage	90 V	ClassA
Control-grid bias	3 V	ClassA
Plate current	3.2 mA	ClassA
Screen current	1.7 mA	ClassA
Biased-detector plate supply	250 V	BiasedDetector
Biased-detector screen voltage	90 V	BiasedDetector
Biased-detector grid bias	8 V	BiasedDetector

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-leak detector plate supply	135 V	GridLeakDetector
Grid-leak resistance minimum	2 M0hm	GridLeakDetector
Grid-leak resistance maximum	5 M0hm	GridLeakDetector

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	550000 ohm	Published datasheet characteristic
Transconductance	1000 μS	Published datasheet characteristic
Amplification factor	595	Published datasheet characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3.7 pF	Published capacitance
Output capacitance	9.2 pF	Published capacitance
Grid-to-plate capacitance	0.007 pF	Published capacitance


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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193X Cunningham

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

193X CUNNINGHAM

Section 1 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	6.3 V	Published nominal
Heater/filament current	300 mA	Published nominal
Transconductance	1100 uS	Published characteristic



SOURCE OPERATING CONDITIONS

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1940 RCA

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1940 RCA

Section 1 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal value
Heater or filament current	300 mA	Published nominal value
Transconductance	1080 μ S	Published representative/high operating value
Amplification factor	595	Published representative/high operating value
Plate resistance	550000 ohm	Published representative/high operating value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.007 pF	With shield can



SOURCE OPERATING CONDITIONS

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1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	300 mA	—



SOURCE OPERATING CONDITIONS

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1950 Sylvania

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

1950 SYLVANIA

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	300 mA	—



SOURCE OPERATING CONDITIONS

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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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published handbook rating
Maximum screen voltage	90 V	Published handbook rating
Plate voltage	250 V	ClassA
Screen voltage	90 V	ClassA
Control-grid bias	3 V	ClassA
Plate current	3.2 mA	ClassA
Screen current	1.7 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	550000 ohm	Published handbook characteristic
Transconductance	1080 μ S	Published handbook characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen voltage	90 V	ClassA
Plate current	7.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	550000 ohm	ClassA
Transconductance	1080 μ S	ClassA
Amplification factor	595	ClassA