

2C51

Voltage - Dual Triode (similar high frequency) electronic tube

2 SECTIONS
CONSTRUCTION
TRIODE-TRIODE

Medium-mu dual triode for versatile electronic service from low frequencies through VHF, including amplifier, mixer, oscillator, multivibrator, and clamp circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8CY	BASE PINS	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	6500 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	35
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.6 W
MAXIMUM GRID DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	16 mA
Two physically identical triode sections with separate cathodes; one representative TUBE_SECTION row is used per the repeated-identical-section rule. Promoted values apply to each section.	

SECTION2 Triode	
PLATE RESISTANCE	6500 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	35
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.6 W
MAXIMUM CATHODE CURRENT	16 mA
Second physical triode restored under current section policy.	

Medium-mu dual triode for amplifier, mixer, oscillator, multivibrator, and clamp circuits from low frequency through VHF.



SOURCE OPERATING CONDITIONS

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1956 Western Electric Tubes

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

1956 WESTERN ELECTRIC TUBES

Section 1 · Triode

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



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195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2.3 pF	Section1
Output capacitance	1.3 pF	Section1
Grid-to-plate capacitance	1.3 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassA
Cathode resistor	240 Ω	ClassA
Plate current	8.2 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	6500 Ω	ClassA
Transconductance	5500 μS	ClassA
Amplification factor	35	ClassA



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1961 Tung Sol

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1961 TUNG SOL

Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid To Plate Capacitance	1.5 pF	EachSection;WithShield
Input Capacitance	2.38 pF	EachSection;WithShield
Output Capacitance	1.55 pF	EachSection;WithShield

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	ClassA;EachSection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	8.2 mA	ClassA;EachSection



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1965 Ericsson Longlife

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1965 ERICSSON LONGLIFE

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	150 V	ClassA;EachSection
Cathode bias resistor	240 Ohm	ClassA;EachSection
Plate current	8.2 mA	ClassA;EachSection
Plate supply voltage	300 V	ClassAB;PushPull;TwoTubes
Load impedance plate-to-plate	40000 Ohm	ClassAB;PushPull;TwoTubes
Maximum signal power output	1 W	ClassAB;PushPull;TwoTubes
Total harmonic distortion	10 %	ClassAB;PushPull;TwoTubes
Heater current maximum	320 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current maximum	10 mA	EachSection
Transconductance maximum	6600 uS	EachSection

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5500 uS	ClassA;EachSection
Amplification factor	35 ratio	ClassA;EachSection
Plate resistance	6400 Ohm	ClassA;EachSection
Equivalent noise resistance	500 Ohm	EachSection
Input conductance at 100 MHz	130 uS	EachSection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 1 of 4

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1966 TUNG SOL ELECTRONIC TUBES 1 OF 4
Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.3 pF	EachSection
Input capacitance	2.3 pF	EachSection
Output capacitance	1.3 pF	EachSection
Plate-to-plate capacitance	0.038 pF	BetweenSections

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-to-cathode voltage maximum	90 V	EachSection
Plate voltage	150 V	ClassA;EachSection
Cathode-bias resistor	240 Ω	ClassA;EachSection
Plate current	8.2 mA	ClassA;EachSection
Application	Amplifier, mixer, oscillator, multivibrator, clamp; low frequency through VHF Section1	

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	6500 Ω	EachSection
Transconductance	5500 μS	EachSection
Amplification factor	35	EachSection


SOURCE DATA APPENDIX

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196X LM Ericsson

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196X LM ERICSSON

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	300 mA	—
Plate resistance	6400 ohm	—
Transconductance	5500 μS	—
Amplification factor	35	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	330 V	—
Maximum plate dissipation	1.6 W	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

2026 Western Electric 300s

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2026 WESTERN ELECTRIC 300S

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridPlateCapacitance	1.3 pF	Per section; without external shield
Input Capacitance	2.2 pF	Per section; without external shield
Output Capacitance	1 pF	Per section; without external shield

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate To Plate Capacitance	0.04 pF	Typical; without external shield
MaximumPlateToPlateCapacitance	0.11 pF	Without external shield
Maximum Plate Current	16 mA	Each section
Maximum Heater Cathode Voltage	90 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	8.2 mA	ClassA; EachSection; Plate=150 V; Grid=-2 V
Transconductance	5500 uS	ClassA; EachSection; Plate=150 V
Amplification Factor	35	ClassA; EachSection