

ELECTRONIC TUBE REFERENCE

ECC85

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Dual triode designed for FM receiver front ends, combining RF amplification with self-oscillating frequency-converter service and useful low-noise performance around 100 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9C12	BASE PINS	9
NOMINAL HEATER	6.3 V / 435 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	9700 Ω
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	57
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	15 mA
Representative section for two equal triode systems.	

SECTION2 Triode	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	58
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	15 mA

Dual triode for RF amplification and self-oscillating frequency-converter service, especially in FM receivers.

SOURCE OPERATING CONDITIONS

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1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
0L e e e e d e e j Vft	63 V	Triode
Alimentation du filament en paraliele. If – 435mA	435 mA	Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension de l'anode	250 V	Triode
Courant anodique	10 mA	Triode
Tension de la grille	2.3 V	Triode
Resistance interne	97 Kohm	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite anode-grille	15 pF	Triode
Capacite anode-cathode	0.18 pF	Triode

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1953 RFT Rundfunk Technik

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1953 RFT RUNDFUNK TECHNIK

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	435 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Plate Dissipation	2.5 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6000 μ S	Typical
Amplification Factor	58	Typical



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1955 Marconi

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1955 MARCONI

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	435 mA	—
Maximum plate voltage	300 V	—
Maximum plate dissipation per section	2.5 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	60	—
Transconductance	6000 μ S	—
Plate resistance	9700 ohm	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	1.5 pF	—


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1958 Amperex Industrial

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1958 AMPEREX INDUSTRIAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	230 V	RF Amplifier
Grid voltage	-2 V	RF Amplifier
Plate current	10 mA	RF Amplifier
Plate current	5.2 mA	Mixer

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	57	RF Amplifier
Plate resistance	9700 ohm	RF Amplifier
Transconductance	6000 μ S	RF Amplifier


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1958 Brimar Radio Valve No 7

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1958 BRIMAR RADIO VALVE NO 7

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	435 mA	—
Application	FMRFAmplifierFrequencyChanger	—



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195X Tesla

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195X TESLA

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	435 mA	Nominal
Maximum Plate Voltage	250 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5900 μ S	Typical
Amplification Factor	57	Typical
Plate Resistance	9700 ohm	Typical



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1961 Ferranti Technical Handbook

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1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	EachSection
Control-grid voltage	-2.2 V	EachSection
Plate current	10 mA	EachSection
Amplification factor	57 ratio	EachSection
Transconductance	6000 uS	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	RFAmplifier
Plate voltage	240 V	RFAmplifier



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1963 Amperex Condensed

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1963 AMPEREX CONDENSED

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	435 mA	Published heater rating
Amplification factor	57	RFAmplifier
Plate resistance	9700 ohm	RFAmplifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RF-amplifier plate voltage	230 V	RFAmplifier
Control-grid bias	-2 V	RFAmplifier
RF-amplifier plate current	10 mA	RFAmplifier

SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V1a

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1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	230 V	RF Amplifier
Grid voltage	-2 V	RF Amplifier
Plate current	10 mA	RF Amplifier
Plate current	5.2 mA	Mixer

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	57	RF Amplifier
Plate resistance	9700 ohm	RF Amplifier
Transconductance	6000 μ S	RF Amplifier

SOURCE OPERATING CONDITIONS

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1967 Mullard Receiving and Amplifying Valves

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1967 MULLARD RECEIVING AND AMPLIFYING VALVES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	10 mA	EachSection;Va=250V
Transconductance	6100 μ S	EachSection;Va=250V
Amplification Factor	55	EachSection;Va=250V
Plate Resistance	9000 ohm	EachSection;Va=250V

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Plate Dissipation	2.5 W	—
Maximum Cathode Current	15 mA	—



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1968 Mazda Belvu

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

1968 MAZDA BELVU

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	435 mA	Published nominal value
Transconductance	6100 μ S	Published nominal or operating characteristic
Equivalent noise resistance	580 ohm	Published RF amplifier condition

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	2.5 W	Published maximum rating

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1972 Philips Receiving Tubes

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1972 PHILIPS RECEIVING TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current I_y	10 mA	—
Transconductance S	6.1 mA/V	—
Heater voltage N	6.3 V	—
Heater current I_f	435 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to grid C_{ag}	1.5 pF	—
$C_{a'g'}$	1.5 pF	—
Anode to cathode C_{ak}	0.17 pF	—

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1973 Mazda Valves Binder 2

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1973 MAZDA VALVES BINDER 2

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage V_h	63 V	—
Heater Current I_h 0	435 A	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Dissipation (either section) Pa(max)	25 W	—
Maximum Total Anode Dissipation Pa(tot)max	45 W	—
Maximum Anode Voltage Va(max)	300 V	—
Maximum Heater to Cathode Voltage (D.C.) Vn-k(max)	90 V	—
Maximum Cathode Current Ik(max)	15 mA	—



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1975 RCA RC30

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

1975 RCA RC30

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc)	6.3 V	Published in approved ECC85 target datasheet entry; Section1
Heater Current	436 mA	Published in approved ECC85 target datasheet entry; Section1
Plate Supply Voltage	560 V	Published in approved ECC85 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate 1.6	1.5 pF	Published in approved ECC85 target datasheet entry; Section1
Cathode to Plate 0.18	0.18 pF	Published in approved ECC85 target datasheet entry; Section1
Grid to Cathode, Heater, and Internal Shield . . 3	3 pF	Published in approved ECC85 target datasheet entry; Section1
Plate to Cathode, Heater, and Internal Shield . . 1.2	1.2 pF	Published in approved ECC85 target datasheet entry; Section1

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1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current I_y	10 mA	Anode current I_y 10 mA
Heater voltage N	6.3 V	Heater voltage N 6.3 V
Heater current I_f	435 mA	Heater current I_f 435 mA
Anode to grid C_{ag}	1.5 pF	Anode to grid C_{ag} 1.5 pF
Anode to cathode C_{ak}	0.17 pF	Anode to cathode C_{ak} 0.17 pF

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance S	6.1 mA/V	Transconductance S 6.1 mA/V
Amplification factor “	35 A	Amplification factor “ 35 -