



ELECTRONIC TUBE REFERENCE

E88CC

Voltage - Dual Triode (similar high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Special-quality long-life twin triode for low-noise VHF cascode amplification and professional service, combining high transconductance with controlled reliability and extended-life characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Noval	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	2600 Ω
TRANSCONDUCTANCE	0.0125 S
AMPLIFICATION FACTOR	33
MAXIMUM PLATE VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	1.8 W
MAXIMUM GRID DISSIPATION	0.03 W
MAXIMUM CATHODE CURRENT	20 mA
Representative row for repeated identical sections.	

SECTION2 Triode	
PLATE RESISTANCE	2600 Ω
TRANSCONDUCTANCE	0.0125 S
AMPLIFICATION FACTOR	33
MAXIMUM PLATE VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	1.8 W
MAXIMUM GRID DISSIPATION	0.03 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Second physical triode section; added to align rows with SectionCount.</i>	

E88CC is listed in the supplied Amperex material as a premium-quality twin triode. Published ratings and characteristics were captured from the supplied table.



SOURCE OPERATING CONDITIONS

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1953 AEG

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

1953 AEG

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	100 V	—
Typical Plate Current	15 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridPlateCapacitance	1.4 pF	—
Grid Cathode Capacitance	3.3 pF	—



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1958 Amperex Industrial

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1958 AMPEREX INDUSTRIAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	220 V	Published table
Plate current	20 mA	Published table
Maximum cathode current	100 mA	SpecialQuality
Maximum grid current	15 mA	SpecialQuality

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	12500 ohm	Published table
Amplification factor	33	Published table
Heater/filament voltage	6.3 V	Published rating
Heater/filament current	300 mA	Published rating



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1959 Telefunken

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1959 TELEFUNKEN

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	365 mA	—



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195X Tesla

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195X TESLA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Interelectrode capacitances	Published	See source sheet for electrode-specific capacitance values



SOURCE OPERATING CONDITIONS

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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 rating
Heater current	300 mA	Published rating
Published characteristic value	3.1	PremiumQuality
Published characteristic value 2	0.5	PremiumQuality

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	220 V	PremiumQuality
Maximum plate current	20 mA	PremiumQuality



SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	EachUnit

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	15 mA	EachUnit

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12500 μ S	EachUnit
Amplification factor	33	EachUnit


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1963 Philips Electron Tubes Handbook V3

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1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating
Transconductance	12500 μ S	EachTriode
Amplification factor	33	EachTriode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	EachTriode
Plate current	15 mA	EachTriode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-cathode capacitance	1.75 pF	EachTriode
Grid-to-cathode capacitance	3.1 pF	EachTriode
Grid-to-plate capacitance	1.4 pF	EachTriode



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1963 Siemens

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1963 SIEMENS

Section 1 · Triode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Noise figure	4.6 dB	200MHz cascode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode peak current	400 mA	Pulse

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Inter-section plate capacitance	45 pF	Maximum



SOURCE OPERATING CONDITIONS

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1999 Philips E-Z

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1999 PHILIPS E-Z

Section 1 · Triode

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Life	10000 h	Published datasheet value
Heater voltage Vs	6.3 V	Published datasheet value
Heater current If	300 mA	Published datasheet value
Anode current Iy	15 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mutual conductance S	12.5 mA/V	Published datasheet value
Noise factor (f =	200 MHz	Published datasheet value
Heater voltage V _h	6.3 V	Published datasheet value
Heater current I _t	315 mA	Published datasheet value
Anode supply voltage V _{ba}	100 V	Published datasheet value
Grid supply voltage V _{bg}	9 V	Published datasheet value
Cathode resistor R _g	680 Ω	Published datasheet value
Equivalent noise resistance R _{eq}	300 Ω	Published datasheet value
Frequency =	45 MHz	Published datasheet value
Frequency =	200 MHz	Published datasheet value
Frequency =	100 MHz	Published datasheet value
Anode voltage V _a	90 V	Published datasheet value
Anode current I _a	15 mA	Published datasheet value
Cathode resistor R _g	120 Ω	Published datasheet value
Anode current I _y	12 mA	Published datasheet value
Mutual conductance S	11.5 mA/V	Published datasheet value
cathode and heater s max	12 μA	Published datasheet value
heater =	90 V	Published datasheet value
heater =	120 V	Published datasheet value
two electrodes ins min	20 MΩ	Published datasheet value
Grid resistor R _g =	0.5 MΩ	Published datasheet value
Cathode to heater C _{ks}	2.6 pF	Published datasheet value
C _k 't	2.7 pF	Published datasheet value
The tube is subjected during	32 h	Published datasheet value
during	10000 h	Published datasheet value
Grid resistor R _g	47 kΩ	Published datasheet value
Anode voltage V _{ao} max	550 V	Published datasheet value
Anode voltage V _a max.,	400 V	Published datasheet value
Anode voltage V _a max	220 V	Published datasheet value
Anode voltage V _a max	250 V	Published datasheet value
(Max. anode dissipation	0.8 W	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode dissipation W_a max	1.5 W	Published datasheet value
Anode dissipation W_a max	1.8 W	Published datasheet value
of section	2 W	Published datasheet value
Grid dissipation W_g max	30 mW	Published datasheet value
Grid voltage $-V_g$ max	100 V	Published datasheet value



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199X JJ

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199X JJ

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	90 V	—
TypicalGridVoltage	-1.3 V	—
Typical Plate Current	15 mA	—
ZeroCurrentPlateVoltage	550 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Cathode Capacitance	3.1 pF	—
Plate Capacitance	0.18 pF	—
GridPlateCapacitance	1.4 pF	—



SOURCE DATA APPENDIX

2026 Genalex Rebrand

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2026 GENALEX REBRAND

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	9000–16000 μS	Plate 90 V; cathode resistor 82 ohm
Amplification Factor	24–40	Plate 90 V; cathode resistor 82 ohm
Plate Current	14–18 mA	Plate 90 V; cathode resistor 82 ohm



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2026 JJ Electronic

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2026 JJ ELECTRONIC

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
U _f	6.3 V	Published value
I _f	300 mA	Published value
U _a	220 V	Published value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
U _a	90 V	Published value
U _g	-1.3 V	Published value
I _a	15 mA	Published value
S	12500 μS	Published value
R _i	2.6 k Ω	Published value
μ	33	Published value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
U-k/f+	60 V	Published value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
cg/k	3.1	Published value
ca	0.18	Published value
cg/a	1.4	Published value

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