



ELECTRONIC TUBE REFERENCE

EC80

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Radiation-cooled UHF triode for high-frequency RF service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9C12	BASE PINS	9
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.012 S
AMPLIFICATION FACTOR	80
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	4 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Triode section; values semantically promoted from published characteristics/maximum-ratings tables where present.</i>	

EC80 is listed in the supplied Amperex material as a radiation-cooled UHF triode. Published operating conditions and electrical characteristics were captured from the supplied tables.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
(500 MHz maximum)	500 MHz	Triode
Tension de l'anode	250 V	Triode
Tension de la grille	1.5 V	Triode
Courant anodique	15 mA	Triode
Pente	12 MA/V	Triode
Tension de l'anode	300 V	Triode
Puissance dissipee sur l'anode	4 W	Triode
Courant cathodique	15 mA	Triode
Tension de la grille (lg	1.8 V	Triode
Resistance du circuit de la grille	3 Mohm	Triode
Tension entre cathode et filament	100 V	Triode
(500 MHz maximum)	500 MHz	Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Indirect (cathode isolee du filament)	68 V	Triode
Alimentation en parallele f	480 mA	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite de la grille et de la broche 6. C (g-!- 6) (k+4- f)	5.1 pF	Triode
Capacite anode-cathode	0.075 pF	Triode
(cathode, filament). Ca (k+ f) < 0,08 pF	0.08 pF	Triode
filament)	3.4 pF	Triode
Capacite cathode-filament	8 pF	Triode
(500 MHz maximum)	500 MHz	Triode



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	550 V	Published table
Maximum plate dissipation	30 W	UHF
Maximum plate current	15 mA	UHF
Maximum frequency	500 MHz	UHF

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12000 μ S	Published table
Heater/filament voltage	6.3 V	Published rating
Heater/filament current	450 mA	Published rating
Gain	15 dB	At 300 MHz
Bandwidth	4.5 MHz	At 300 MHz



SOURCE OPERATING CONDITIONS

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1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	450 mA	Published heater rating
Transconductance	12000 μ S	UHF
Gain	15 dB	At 300 MHz
Bandwidth	4.5 MHz	At 300 MHz

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	30 W	UHF
Maximum plate voltage	550 V	UHF
Maximum plate current	15 mA	UHF
Maximum frequency	500 MHz	UHF



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Grid voltage	-1.5 V	—
Plate current	15 mA	—
Maximum plate voltage	300 V	—
Maximum plate dissipation	4 W	—
Maximum useful frequency	500 MHz	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12000 μ S	—
Amplification factor	80	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-cathode capacitance	0.08 pF	—
Input capacitance	9.3 pF	—
Output capacitance	3.4 pF	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	430 mA	Published heater rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12000 μ S	UHF
Amplification factor	80	UHF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	UHF
Grid bias	-1.5 V	UHF
Plate current	15 mA	UHF
Maximum plate voltage	300 V	Published limit
Maximum plate dissipation	4 W	Published limit



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
Typical anode voltage	250 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-grid capacitance	0.08 pF	Maximum
Cathode-heater capacitance	8 pF	Maximum

TUBE TINKER

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