



ELECTRONIC TUBE REFERENCE

EC157

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Power-capable triode intended for amplifier or driver service. Manufacturer data support moderate-current operation and useful dissipation, but do not justify assignment to the large transmitting or specialized regulator families.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8C18	BASE PINS	8
NOMINAL HEATER	6.3 V / 735 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.021 S
AMPLIFICATION FACTOR	43
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM CATHODE CURRENT	70 mA
Triode section; values semantically promoted from published characteristics/maximum-ratings tables where present.	

EC157 is described in the supplied Philips material as a microwave disc-seal triode. Published electrical ratings and characteristics were extracted from the supplied datasheet.

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
(4 000 MHz)	0 MHz	Triode
Tension de l'anode	180 V	Triode
Courant anodique	60 mA	Triode
Tension de la grille	1.25 V	Triode
Tension de la grille	2.5 V	Triode
Tension de chauffage	6.3 V	Triode
Tension de l'anode (courant anod. nul) Va	500 V	Triode
Tension de l'anode	300 V	Triode
Puissance dissipee sur l'anode	10 W	Triode
Courant cathodique	70 mA	Triode
Courant de la grille	10 mA	Triode
Puissance d'attaque (grille a lamasse) Pe	1 W	Triode
Tension continue de la grille (positive) Vg	5 V	Triode
Tension continue de la grille (negative) Vg	50 V	Triode
Tension entre cathode et filament	50 V	Triode
cathode et le filament	20 kohm	Triode
Tension grille (crete positive)	20 V	Triode
Tension grille (crete negative)	100 V	Triode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Puissance dissipee sur la grille	2 W	Triode
indique les circuits pour le courant continu) (503 A	60 mA	Triode
1000 ® pour la	30 mA	Triode
Dans la plupart des cas un debit de 6 a 10 litres d'air par minute suffit	6 a	Triode
(4 000 MHz)	0 MHz	Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Indirect (cathode isolee du filament)! Vf	6.3 V	Triode
Alimentation en parallele, continu ou alternatif. 1f	735 mA	Triode
(4 000 MHz)	0 MHz	Triode
Tension de l'alimentation anodique Vba	200 V	Triode
Tension d'alimentation de la grille. Vbg	20 V	Triode
Courant anodique	30 mA	Triode
Largeur de bande (a-0,1 dB)	50 MHz	Triode
de puissance de 8dB (V{	18 W	Triode
de puissance de 6 dB (Vf	55 W	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite anode-cathode	35 mpF	Triode
Capacite grille-cathode	3 pF	Triode
Capacite anode-grille	1.4 pF	Triode



SOURCE DATA APPENDIX

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
Anode voltage	180 V	MicrowaveAmplifier
Anode current	60 mA	MicrowaveAmplifier
Grid bias	-1.25 V	MicrowaveAmplifier
Operating frequency	4000 MHz	GroundedGrid;Broadband
Anode supply voltage	200 V	GroundedGrid;Broadband
Grid supply voltage	20 V	GroundedGrid;Broadband
Bandwidth	50 MHz	GroundedGrid;Broadband
Output power at 8 dB gain	1.8 W	GroundedGrid;60mA
Output power at 6 dB gain	0.5 W	GroundedGrid;30mA
Power gain at 1 mW drive	13 dB	GroundedGrid

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	21000 μ S	Section1
Amplification factor	43	Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-grid capacitance	1.4 pF	Section1
Anode-to-cathode capacitance	0.035 pF	Section1
Grid-to-cathode capacitance	3 pF	Section1



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

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	735 mA	Published heater rating
Transconductance	21000 μS	MicrowaveTriode
Amplification factor	43	MicrowaveTriode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	180 V	MicrowaveTriode
Plate current	60 mA	MicrowaveTriode
Grid bias	-1.25 V	MicrowaveTriode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.4 pF	Published
Plate-to-cathode capacitance	0.035 pF	Published



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ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical anode voltage	180 V	GroundedGrid
Typical anode current	60 mA	GroundedGrid

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-grid capacitance	1.4 pF	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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