



ELECTRONIC TUBE REFERENCE

ECH41

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL
DATA

2 SECTIONS
CONSTRUCTION
HEXODE-TRIODE

Compact triode-heptode frequency changer for superheterodyne receivers. The triode operates as local oscillator while the heptode performs mixing, combining both functions in one postwar receiver valve.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 230 mA	PARALLEL HEATER	6.3 V / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
MAXIMUM PLATE VOLTAGE	175 V
<i>Published ratings, characteristics and operating conditions reviewed.</i>	

SECTION2 Hexode	
MAXIMUM PLATE VOLTAGE	550 V
<i>Published ratings, characteristics and operating conditions reviewed.</i>	

ECH41 is described in the supplied Philips datasheet as a triode-hexode frequency changer. Published electrical ratings, characteristics and operating conditions were extracted from the supplied source.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	230 mA	Published heater rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode maximum plate voltage	175 V	TriodeSection
Triode maximum plate dissipation	0.9 W	TriodeSection
Hexode maximum plate voltage	300 V	HexodeSection
Hexode maximum plate dissipation	0.8 W	HexodeSection
Hexode maximum screen voltage	125 V	HexodeSection
Oscillator triode plate current	4.9 mA	TriodeSection Oscillator



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating VE	6.3 V	Published datasheet value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cq	6 pF	Published datasheet value
Cq = 6,0 pF Ca	1.5 pF	Published datasheet value
Cg1	3.4 pF	Published datasheet value
Cg1 = 3,4 pF CeT+g3	4.8 pF	Published datasheet value
Cagt <	0.1 pF	Published datasheet value
Cagt < 0,1 pF C(gT+g3)a	1.2 pF	Published datasheet value
Cg1r <	0.15 pF	Published datasheet value
C(gT+g3)-gi <	0.35 pF	Published datasheet value
C(gT+g3)-al <	0.2 pF	Published datasheet value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Vb'	250 V	Published datasheet value
Ia	4.9 mA	Published datasheet value
Vose	8 V	Published datasheet value
seff	0.55 mA/V	Published datasheet value
Va=Vp	250 v	Published datasheet value
IgT+g3	350 v	Published datasheet value
v -4 = -2	-28 v	Published datasheet value
Valiga = 105	147 v	Published datasheet value
Se = 500	5 w	Published datasheet value
Vao = max	550 V	Published datasheet value
Vao = max. 550 V T(g2+g4)o = max	550 V	Published datasheet value
Vg = max	300 V	Published datasheet value
Vg = max. 300 V Vg2o+gy = max	125 V	Published datasheet value
Wy = max	0.8 W	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Wy = max. 0,8 W Wg2ega = max	0.3 W	Published datasheet value
Ty = max	7 mA	Published datasheet value
Ty = max. 7 mA Vg1 (Igl=+	0.3 μA	Published datasheet value
Ty = max. 7 mA Vg1 (Igl=+0,3uA) = max	-1.3 V	Published datasheet value
Rg3 = maX. 3 MR vkt = max	100 V	Published datasheet value
Yao = max	550 V	Published datasheet value
Yao = max. 550 V. Vg(Ig = +	0.3 μA	Published datasheet value
Yao = max. 550 V. Vg(Ig = +0,3 uA) max	-1.3 V	Published datasheet value
Va = max	175 V	Published datasheet value
Wo o= mux	0.9 W	Published datasheet value
e = max. 9,% ma Iyt = max	100 V	Published datasheet value