ELECTRONIC TUBE REFERENCE

EK2

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
OCTODE

Radio receiver frequency changer combining oscillator and mixer functions for superheterodyne conversion. Its multi-grid construction translates incoming RF signals to the intermediate frequency within the receiver front end.

General characteristics

BASE DESIGNATION	–	**BASE PINS**	8
NOMINAL HEATER	6.3 V / 200 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Octode

TRANSCONDUCTANCE	0.0009 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	12 mA

Reference/equivalence sheet; operating tables not reproduced. Values were not imported from EK32.

EK2 is listed in the supplied valve table as a octode converter. Published operating and characteristic values were transcribed from its target row.

SOURCE OPERATING CONDITIONS

SOURCE PDF

1938 Philips Miniwatt Vacuum Tube Catalog

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

1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

Section 1 · Octode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**250 V**	Published table operating point
Screen voltage	**200 V**	Published table operating point
Plate current	**4 mA**	Published table operating point
Control-grid bias	**4 V**	Published table operating point
Alternate plate voltage	**100 V**	Converter OperatingPoint1
Alternate screen voltage	**100 V**	Converter OperatingPoint1
Alternate plate current	**1.5 mA**	Converter OperatingPoint1

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transconductance	**900 µS**	Published table characteristic
Heater/filament voltage	**6.3 V**	Published heater/filament rating
Heater/filament current	**200 mA**	Published heater/filament rating
Conversion transconductance	**550 µS**	Converter

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1958 Mullard Receiving Tubes

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

1958 MULLARD RECEIVING TUBES

Section 1 · Octode

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Anode-control-grid capacitance	**0.07 pF**	Maximum
Anode-cathode capacitance	**10 pF**	—

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 · Octode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
%, mehr als	**1 Megohm**	—
i Heizspannung Vi	**63 V**	—
Voss	**9 V**	—
Iy, [1]	**200 pA**	—
Iy, [2]	**200 pA**	—
Neg. Vorspannung an Gitter 4 [1]	**2 V**	—
Neg. Vorspannung an Gitter 4 [2]	**15 V**	—
I, [1]	**1 mA**	—
I, [2]	**1 mA**	—
Iy + Iy [1]	**1 mA**	—
Iy + Iy [2]	**1 mA**	—
I, [1]	**1.5 mA**	—
I, [2]	**2.1 mA**	—
Se [1]	**550 pA/V**	—
Se [2]	**5.5 pA/V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Se [3]	**2 uA**	—
Se [4]	**5.5 uA/V**	—
Se [5]	**2 pA/V**	—
Iy [1]	**32 mA**	—
Iy [2]	**5.5 mA**	—
Va = 200	**250 V**	—
V2	**200 V**	—
Wps	**50 V**	—
600 Yau	**2 V**	—
/ [- E : T bei Vg, [1]	**200 V**	—
/ [- E : T bei Vg, [2]	**50 V**	—
Vosz [1]	**6 v**	—
Vosz [2]	**6 V**	—
g1 [1]	**300 pA**	—
g1 [2]	**150 pA**	—
4 –3 V1) – [1]	**26 V**	—
4 –3 V1) – [2]	**40 V**	—
Ia [1]	**2.5 mA**	—
Ia [2]	**2.1 mA**	—
Iy + Igs [1]	**2.8 mA**	—
Iy + Igs [2]	**1.5 mA**	—
I, [1]	**2.3 mA**	—
I, [2]	**4 mA**	—
Mischsteilheit [1]	**550 uA/V**	—
Mischsteilheit [2]	**5.5 pA/V**	—
Mischsteilheit [3]	**1 pA**	—
Mischsteilheit [4]	**550 pA/V**	—
Mischsteilheit [5]	**5.5 uA/V**	—
Mischsteilheit [6]	**1 pA/V**	—
S£182 [1]	**0.35 mA/V**	—
S£182 [2]	**0.9 mA/V**	—
i i jj_fi–" Vg2	**200 V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
8001114 {—Tl' T Vem	**9 V**	—
bei Vg, [1]	**200 V**	—
bei Vg, [2]	**80 V**	—
800 /2= g2«	**100 V**	—
Vas	**80 V**	—
Yyt	**-3 V**	—
1 P g bei Vg, — [1]	**100 V**	—
1 P g bei Vg, — [2]	**80 V**	—
spannung bei Vgy [1]	**100 V**	—
spannung bei Vgy [2]	**50 V**	—
A Vorspannung (also bei Vy1	**0 V**	—
[DerWert von	**15 V**	—
Wt VautOOV [Van	**250 V**	—
Oszillatorspannung (s. Abb. 4) geht hervor, dafl bei Spannungen von 9 bis	**10 V**	—
Steilheit sogar noch giinstiger ist als bei	**15 V**	—
~30 V2a [1]	**100 V**	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Va [1]	**100 V**	—
Va [2]	**250 V**	—
Vgss [1]	**50 V**	—
Vgss [2]	**50 V**	—
Oszillatoranodenspannung [1]	**100 V**	—
Oszillatoranodenspannung [2]	**200 V**	—
Anodenspannung [1]	**100 V**	—
Anodenspannung [2]	**250 V**	—
Vg 3.5 [1]	**80 V**	—
Vg 3.5 [2]	**80 V**	—
Oszdlatoranodenspannung [1]	**100 V**	—
Oszdlatoranodenspannung [2]	**200 V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Vaeo = max [1]	**550 V**	—
Vaeo = max [2]	**1.3 W**	—
Va = max [1]	**300 V**	—
Va = max [2]	**12 mA**	—
Wa = max [1]	**1 W**	—
Wa = max [2]	**0.3 pA**	—
Wa = max [3]	**13 V**	—
Vg3,50 = max	**550 V**	—
V35 = max	**125 V**	—
We3s5 = max	**0.3 W**	—
Ve2o == max	**550 V**	—
Vj = max	**225 V**	—

Tube Tinker

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