



ELECTRONIC TUBE REFERENCE

X41

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

CONSOLIDATED TECHNICAL
DATA

2 SECTIONS
CONSTRUCTION
HEXODE-TRIODE

Radio receiver frequency changer designed for superheterodyne mixer and oscillator service. Its multi-grid construction performs signal conversion, often integrating local oscillation and mixing within one valve.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	4 V / 1.2 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode

MAXIMUM PLATE VOLTAGE	150 V
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Osram X41 common-cathode indirectly heated triode-hexode receiving frequency changer. The oscillator triode maximum anode rating is 150 V and recommended operating value is 100 V. Do not confuse the separate hexode anode maximum of 250 V with the oscillator anode limit. Heater 4 V 1.2 A; triode grid drives mixer grid internally.

SECTION2 Hexode

MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	80 V

Osram X41 variable-mu hexode mixer of a 4 V 1.2 A triode-hexode frequency changer. Maximum screen voltage 80 V; manufacturer-recommended typical screen operating voltage 70 V. Hexode anode rated 250 V. Published conversion conductance about 640 μ S and conversion impedance about 0.75 M Ω are operating converter characteristics, not ordinary static transconductance or plate resistance. Both sections share an indirectly heated cathode.

An indirectly heated triode-hexode mixer/first-detector/frequency-changer valve with a common cathode, low interaction between sections and suitability for short-wave reception.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Osram Valves

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

1937 OSRAM VALVES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Oscillator Anode Voltage	150 V	Triode oscillator section
Oscillator Grid Peak Swing	12 V	Triode oscillator section

1937 OSRAM VALVES

Section 2 · Hexode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	4 V	Published datasheet value
Heater Current	1.2 A	Published datasheet value
Anode Voltage Maximum	250 V	Published datasheet value
Screen Voltage Maximum	80 V	Published datasheet value
Oscillator Anode Voltage	150 V	Published datasheet value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Conversion Conductance	640 μ S	Published datasheet value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1955 Marconi

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

1955 MARCONI

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Oscillator section function	Local oscillator	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Oscillator anode voltage	250 V	—

1955 MARCONI

Section 2 · Hexode

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mixer section identity	Hexode	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mixer anode voltage	250 V	—
Mixer screen voltage	70 V	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency-changer service	Explicit	—

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