



ELECTRONIC TUBE REFERENCE

X23

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	2 V / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode

No fixed ratings recorded.

Marconi X23 oscillator triode in a 2 V triode-hexode frequency changer. The manufacturer shows 150 V oscillator-anode supply through 20 k Ω as a typical operating example, not a general maximum rating. Previous maximum-anode entry 250 V is unsupported; the limit is left unknown.

SECTION2 Hexode

No fixed ratings recorded.

Marconi X23 converter hexode: manufacturer gives 150 V anode and 60 V screen as typical receiving operating conditions, with about 0.7 mA anode and 1.7 mA screen current, -1.5 V grid bias and 6 V peak oscillator injection. These are not declared absolute maximum limits, hence maximum voltage fields left NULL. Seven-pin base; preserve application and capacitance data.

Two-volt triode-hexode frequency changer.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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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	—

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Section 2 · Hexode

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mixer anode voltage	150 V	—
Mixer screen voltage	60 V	—

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