



ELECTRONIC TUBE REFERENCE

HD23

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

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

Battery double-diode triode combining two signal-rectifying diode systems with a high-magnification triode for subsequent low-frequency amplification in radio receiver detector and audio stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	5
NOMINAL HEATER	2 V / 100 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode

No fixed ratings recorded.

Marconi HD23 first detector diode of a battery-operated double-diode triode. This physical diode is dedicated to signal rectification when connected to pin 5, as recommended by the manufacturer. The HD23 uses a 2 V, 0.1 A directly heated filament and a five-pin base.

SECTION2 Diode

No fixed ratings recorded.

Marconi HD23 second physical diode section for receiver detection/rectification alongside the other diode and a low-frequency amplifier triode. Numerical diode absolute limiting values are not confirmed by the supplied manufacturer sheet.

SECTION3 Triode

MAXIMUM PLATE VOLTAGE

150 V

Marconi HD23 directly heated triode for receiver AF amplification, with 2 V 0.1 A filament shared with two diode sections. Manufacturer gives typical 120 V and 150 V HT supply operating points, resistive anode loads of 50 k Ω or 250 k Ω , and stage gains approximately 22-28. Stage gain is circuit-dependent and must not be treated as intrinsic amplification factor; transformer coupling can use approximately -1.5 V grid bias.

The Marconi HD23 combines two diode sections with a high-magnification triode for signal rectification and subsequent low-frequency amplification.

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 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode Function	Signal rectification	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Construction	Diode section	—

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Section 2 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode Function	Auxiliary diode	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Construction	Diode section	—

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Section 3 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	2 V	—
Maximum/Published Anode Voltage	150 V	—
Typical Anode Current	1.5 mA	—
Typical Voltage Gain	22	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Bias for Transformer Coupling	-1.5 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-Cathode Capacitance	2.75 pF	—
Grid-Anode Capacitance	2.5 pF	—
Anode-Cathode Capacitance	10 pF	—