



ELECTRONIC TUBE REFERENCE

X719

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

CONSOLIDATED TECHNICAL
DATA

2 SECTIONS
CONSTRUCTION
HEPTODE-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	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.0037 S
AMPLIFICATION FACTOR	22
MAXIMUM PLATE VOLTAGE	250 V
<i>Marconi X719/ECH81 oscillator triode of a 6.3 V 0.30 A indirectly heated triode-heptode receiver frequency changer. Manufacturer typical static triode characteristics at 100 V anode, zero grid bias: gm 3.7 mA/V, amplification factor 22. Oscillator-mode effective slope differs from intrinsic static gm and must not be substituted for it. B9A nine-pin base.</i>	

SECTION2 Heptode	
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	1.7 W
MAXIMUM SCREEN DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	12.5 mA
<p><i>Marconi X719/ECH81 heptode frequency-converter and RF/IF amplifier section; 6.3 V, 0.30 A heater. Maximum anode voltage 300 V, screen voltage 125 V, plate dissipation 1.7 W, screen dissipation 1 W, cathode current 12.5 mA. The 250 V anode and 100 V screen values commonly used are typical circuit operating conditions, not maximum limits. Conversion conductance and RF/IF amplification slope are distinct operating-mode characteristics.</i></p>	

Triode-heptode frequency changer.

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 · Heptode

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mixer anode voltage	250 V	—
Mixer screen voltage	100 V	—

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

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