



ELECTRONIC TUBE REFERENCE

6AN7

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

CONSOLIDATED TECHNICAL DATA

2 SECTIONS
CONSTRUCTION
HEXODE-TRIODE

Triode-hexode frequency changer for superheterodyne receivers. The triode supplies local oscillation while the hexode performs mixing, combining both front-end functions in one envelope.

GENERAL CHARACTERISTICS

BASE DESIGNATION	90	BASE PINS	9
NOMINAL HEATER	6.3 V / 230 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.00075 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1.5 W
Published maximum ratings, representative operating characteristics, and capacitance columns reviewed.	

SECTION2 Hexode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.00075 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM SCREEN DISSIPATION	0.3 W
MAXIMUM CATHODE CURRENT	10 mA
<i>Published maximum ratings, representative operating characteristics, and capacitance columns reviewed.</i>	

6AN7 is listed in the supplied receiving-tube handbook as a triode-hexode converter. The published heater rating is 6.3 V at 0.23 A. Maximum ratings and representative operating characteristics were transcribed from the supplied table.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 2 · Hexode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published handbook rating
Maximum screen voltage	125 V	Published handbook rating
Plate voltage	250 V	ClassA
Screen voltage	85 V	ClassA
Control-grid bias	2 V	ClassA
Plate current	3 mA	ClassA
Screen current	3 mA	ClassA
Triode oscillator plate supply	250 V	Converter Oscillator
Triode oscillator plate current	5.1 mA	Converter Oscillator
Oscillator grid resistor	22000 ohm	Converter Oscillator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	Published handbook characteristic
Transconductance	750 μ S	Published handbook characteristic
Heater voltage	6.3 V	Published heater rating
Heater current	230 mA	Published heater rating

1999 Philips 0-D

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

1999 PHILIPS 0-D
Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	—
Plate current	10 mA	—
Transconductance	2800 uS	—
Amplification factor	22	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-grid capacitance	1 pF	—

1999 PHILIPS 0-D
Section 2 · Hexode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	230 mA	—
Conversion transconductance	700 uS	—
Plate voltage	250 V	—
Screen voltage	100 V	—
Plate current	3 mA	—
Plate resistance	1000000 ohm	Minimum

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	4.8 pF	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

