



ELECTRONIC TUBE REFERENCE

512AX

Voltage Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Extremely low-power directly heated subminiature pentode for audio and direct-coupled voltage amplification in hearing aids and portable instruments.

GENERAL CHARACTERISTICS

BASE DESIGNATION	512AX	BASE PINS	—
NOMINAL HEATER	0.625 V / 20 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1250000 Ω
TRANSCONDUCTANCE	0.00016 S
MAXIMUM PLATE VOLTAGE	45 V
MAXIMUM SCREEN VOLTAGE	45 V
<i>Published maximum ratings, operating characteristics, rectifier/deflection data reviewed.</i>	

Directly heated subminiature voltage-amplifier pentode for resistance-coupled audio and direct-coupled amplifiers, including hearing aids and portable instruments.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	0.625 V	Published nominal value
Heater or filament current	20 mA	Published nominal value
Transconductance	160 μ S	Published characteristic

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 1 · Pentode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	45 V	Published handbook rating
Maximum screen voltage	45 V	Published handbook rating
Plate voltage	22.5 V	ClassA
Screen voltage	22.5 V	ClassA
Control-grid bias	3.625 V	ClassA
Plate current	0.125 mA	ClassA
Load resistance	3000 ohm	ClassA
Power output	0.03 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1250000 ohm	Published handbook characteristic
Transconductance	160 μS	Published handbook characteristic
Heater/filament voltage	0.625 V	Published heater/filament rating
Heater/filament current	20 mA	Published heater/filament rating