



ELECTRONIC TUBE REFERENCE

6AS11

Voltage Dual Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

PENTODE-TRIODE-TRIODE

Three-section Duodecar combining high-mu and medium-mu triodes with a sharp-cutoff pentode, each documented for Class-A amplifier operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12DP	BASE PINS	12
NOMINAL HEATER	6.3 V / 1.05 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	12400 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	68
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.5 W
High-mu triode Unit No.1.	

SECTION2 Triode	
PLATE RESISTANCE	9400 Ω
TRANSCONDUCTANCE	0.0044 S
AMPLIFICATION FACTOR	41
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2 W
<i>Medium-mu triode Unit No.2.</i>	

SECTION3 Pentode	
PLATE RESISTANCE	70000 Ω
TRANSCONDUCTANCE	0.0105 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.1 W
<i>Sharp-cutoff pentode unit.</i>	

6AS11 is a three-section Duodecar tube combining high-mu and medium-mu triodes with a sharp-cutoff pentode, each with separately published Class A1 characteristics.

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.05 A	—
Maximum plate voltage	330 V	ClassA1
Maximum plate dissipation	1.5 W	ClassA1

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA1
Amplification factor	68	ClassA1
Plate resistance	12400 ohm	ClassA1
Transconductance	5500 μ S	ClassA1
Plate current	7 mA	ClassA1

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Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.05 A	—
Maximum plate voltage	330 V	ClassA1
Maximum plate dissipation	2 W	ClassA1

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	41	ClassA1
Plate resistance	9400 ohm	ClassA1
Transconductance	4400 μ S	ClassA1
Plate current	9.2 mA	ClassA1

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Section 3 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.05 A	—
Maximum plate voltage	330 V	ClassA1
Maximum screen supply voltage	330 V	ClassA1
Maximum screen input	1.1 W	ClassA1
Maximum plate dissipation	5 W	ClassA1

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA1
Screen supply voltage	125 V	ClassA1
Cathode resistor	68 ohm	ClassA1
Plate resistance	70000 ohm	ClassA1
Transconductance	10500 μ S	ClassA1
Plate current	24 mA	ClassA1
Screen current	5.2 mA	ClassA1