

ELECTRONIC TUBE REFERENCE

6AY11

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

CONSOLIDATED TECHNICAL DATA
4 SECTIONS
CONSTRUCTION

DIODE-DIODE-TRIODE-TRIODE

Compactron containing two high-mu triodes and two diodes, with diode sections for FM detection and triodes for audio-frequency voltage amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12DA	BASE PINS	12
NOMINAL HEATER	6.3 V / 690 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12DA - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	D	K – Cathode	CONNECTED
PIN3	D	P – Plate (Anode)	CONNECTED
PIN4	C	K – Cathode	CONNECTED
PIN5	C	G1 – Control Grid	CONNECTED
PIN6	C	P – Plate (Anode)	CONNECTED
PIN7	B	P – Plate (Anode)	CONNECTED
PIN8	B	G1 – Control Grid	CONNECTED
PIN9	B	K – Cathode	CONNECTED
PIN10	A	P – Plate (Anode)	CONNECTED
PIN11	A	K – Cathode	CONNECTED
PIN12	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	52700 Ω
TRANSCONDUCTANCE	0.0019 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1 W
<i>Representative row for the two electrically identical triode sections.</i>	

SECTION2 Triode	
<i>No fixed ratings recorded.</i>	
<i>Second physical triode section added to match documented twin-triode/twin-diode construction.</i>	

SECTION3 Diode	
<i>No fixed ratings recorded.</i>	
<i>Representative row for the two identical detector-diode sections; diode continuous-current rating is preserved as a parameter.</i>	

SECTION4 Diode	
<i>No fixed ratings recorded.</i>	
<i>Second physical diode section added to match documented twin-triode/twin-diode construction.</i>	

The 6AY11 is a Compactron containing two high-mu triodes and two diodes. The diodes are intended for FM detector service and the triodes for audio-frequency voltage-amplifier service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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
Plate Voltage	250 V	EachTriode
Grid Voltage	-2 V	EachTriode
Plate Current	1.2 mA	EachTriode

CAPACITANCE			
PARAMETER		PUBLISHED VALUE	CONDITION / NOTE
Grid To Plate Capacitance		2.2 pF	EachTriode
Input Capacitance		2 pF	EachTriode
Output Capacitance		0.22 pF	EachTriode
TriodeGridToDiodePlateCapacitanceMaximum		0.08 pF	CrossSection
TriodeGridSection1ToSection2CapacitanceMaximum		0.01 pF	CrossSection
TriodePlateSection1ToSection2Capacitance		0.48 pF	CrossSection

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Section 3 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Continuous Diode Current	5 mA	EachDiode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average Diode Current	18 mA	EachDiode; AppliedDC=5V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate To Cathode And Heater Capacitance	2 pF	Each Diode
CathodeToHeaterAndPlateCapacitance	5.5 pF	Each Diode