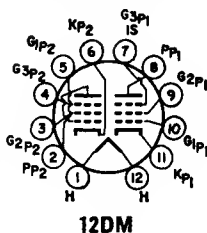


6AR11

8AR11, 11AR11

Duodecar type used as if-amplifier tube in television receivers. Outlines section, 8A; requires duodecar 12-contact-socket. Types 8AR11 and 11AR11 are identical with type 6AR11 except for heater ratings.

**12DM**

	6AR11	8AR11	11AR11	
Heater Voltage (ac/dc)	6.3	8.4	11.2	volts
Heater Current	0.8	0.6	0.45	ampere
Heater Warm-up Time (Average)	—	11	11	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances:				
Grid No.1 to Plate	Unit No.1		Unit No.2	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No. 3, and Internal Shield	0.026		0.026	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	10		10	pF
Grid No.1 to Plate of Other Unit	2.8		3	pF
Plate of Unit No.1 to Plate of Unit No.2	0.002		0.002	pF
			0.02	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values, Each Unit)**

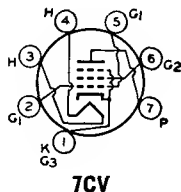
Plate Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	volts
Grid-No.2 Voltage	See curve page 300	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	3.1	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	0.65	watt
For grid-No.2 voltages between 165 and 330 volts	See curve page 300	

CHARACTERISTICS (Each Unit)

Plate Supply Voltage	125	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	125	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	0.2	megohm
Transconductance	10500	μmhos
Plate Current	11	mA
Grid-No.2 Current	3.5	mA
Grid-No.1 Voltage (Approx.) for transconductance of 50 μmhos	—15	volts

6AS5**BEAM POWER TUBE**

Miniature type used as output amplifier primarily in automobile and in ac-operated receivers. Outlines section, 5D; requires miniature 7-contact socket. For curves of average plate characteristics, refer to type 35C5.

**7CV**

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.8	ampere
Peak Heater-Cathode Voltage	±100 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	12	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	9	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	150	volts
Grid-No.2 (Screen-Grid) Voltage	117	volts
Plate Dissipation	5.5	watts
Grid-No.2 Input	1.0	watt
Bulb Temperature (At hottest point)	250	°C

TYPICAL OPERATION

Plate Voltage	150	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 (Control-Grid) Voltage	-8.5	volts
Peak AF Grid-No.1 Voltage	8.5	volts
Zero-Signal Plate Current	35	mA
Maximum-Signal Plate Current	36	mA
Zero-Signal Grid-No.2 Current (Approx.)	2	mA
Maximum-Signal Grid-No.2 Current (Approx.)	6.5	mA
Transconductance	5600	μmhos
Load Resistance	4500	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	2.2	watts

MAXIMUM CIRCUIT VALUES

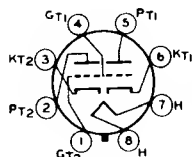
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

Refer to chart at end of section.

6AS6

6AS7G
INDUSTRIAL
TYPE

LOW-MU TWIN POWER TRIODE



8BD

Glass octal type used as a regulator tube in dc power supply units and in projection television booster scanning applications. Outlines section, 27B; requires octal socket. Refer to type 6080 for average plate characteristics curves.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	2.5	amperes
Heater-Cathode Voltage:		
Peak values	±300 max.	volts
Direct Interelectrode Capacitances (Approx.) each unit:		
Grid to plate	10.5	pF
Grid to heater and cathode	6.8	pF
Plate to heater and cathode	2.3	pF
Heater to cathode	11.0	pF
Grid of unit No. 1 to grid of unit No. 2	0.70	pF
Plate of unit No. 1 to plate of unit No. 2	1.65	pF

Class A₁ Amplifier (Each Unit)

CHARACTERISTICS

Plate-Supply Voltage	135	volts
Cathode-Bias Resistor	250	ohms
Amplification Factor	2	
Plate Resistance (Approx.)	280	ohms
Transconductance	7000	μmhos
Plate Current	125	mA

DC Amplifier (Each Unit)

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	250	volts
Plate Current	125	mA
Plate Dissipation	13	watts

■ Operation with fixed bias is not recommended.

Booster Scanning Service (Each Unit)

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Center Values)

Peak Negative-Pulse Plate Voltage	1700	volts
DC Plate Current	125	mA
Plate Dissipation	13	watts