3AT2B  
**HALF-WAVE VACUUM RECTIFIER**

Duodecar type used as a high-voltage rectifier to supply power to the anode of the television picture tube. Outlines section, 9B; requires duodecar 12-contact socket. Socket terminals 4, 7, and 10 may be used as tie points for components at or near filament potential. For high-voltage and X-ray safety considerations, refer to page 93. **Heater:** volts (ac/dc), 3.15; ampere, 0.22.

**Flyback Rectifier**

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

**MAXIMUM RATINGS** (Design-Maximum Values)

- Peak Inverse Plate Voltage# ........................................... 38000* volts
- Peak Plate Current .................................................... 88 mA
- Average Plate Current .............................................. 1.7 mA
- Heater Voltage:
  - Absolute-maximum value ........................................... 3.65 volts
  - Absolute-minimum value ........................................... 2.65 volts

**CHARACTERISTIC, Instantaneous Value**

- Tube Voltage Drop for plate current of 7 mA .................... 60 volts

**X-RADIATION CHARACTERISTIC**

- X-Radiation, Maximum:
  - Statistical value controlled on a lot sampling basis ........... 25 mR/hr

# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
* The dc component must not exceed 30000 volts.

**Caution**—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.

3AU6  
Refer to type 6AU6A.

3AV6  
Refer to chart at end of section.

3AW2  
Refer to chart at end of section.

3AW2A  
**HALF-WAVE VACUUM RECTIFIER**

Duodecar type used as a high-voltage rectifier to supply power to the anode of the picture tube in color and black-and-white television receivers. Outlines section, 9B; requires duodecar 12-contact socket. Socket terminals 4, 7, and 10 may be used as tie points at or near heater potential. For high-voltage and X-ray safety considerations, refer to page 93. **Heater:** volts (ac/dc), 3.15; ampere, 0.35.

**Pulsed Rectifier**

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

**MAXIMUM RATINGS** (Design-Maximum Values)

- Peak Inverse Plate Voltage# ........................................... 38000* volts
- Peak Plate Current .................................................... 110 mA
- Average Plate Current .............................................. 2.2 mA
- Heater Voltage:
  - Absolute-maximum value ........................................... 3.65 volts
  - Absolute-minimum value ........................................... 2.65 volts

**CHARACTERISTIC, Instantaneous Value**

- Tube Voltage Drop for plate current of 7 mA .................... 60 volts
X-RADIATION CHARACTERISTIC

X-Radiation, Maximum:
Statistical value controlled on a lot sampling basis .............. 25 mR/hr
# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
• The dc component must not exceed 30000 volts.

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to type 6BC5.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to type 6BN4A.

Refer to type 6BN6.

Refer to chart at end of section.
For replacement use type 3BW2/3BS2A/3BT2.

For replacement use type 3BW2/3BS2A/3BT2.

Refer to chart at end of section.

Refer to type 6BU8.
For replacement use type 3BW2/3BS2A/3BT2.

HALF-WAVE VACUUM RECTIFIER

Duodecar type used as a high-voltage rectifier to supply power to the anode of the picture tube in color television receivers. Outlines section, 9B; requires octal socket. Socket terminals 4 and 10 may be used as tie points for components at or near heater potential. For high-voltage and X-ray safety considerations, refer to page 93.
Heater Voltage (ac/de) .................................................. 3.15 volts
Heater Current .................................................. 0.48 ampere
Direct Inter-electrode Capacitance (Approx.):
Plate to Cathode, Heater, and Internal Shield .......... 1.6 pF

**Flyback Rectifier**

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

**MAXIMUM RATINGS** (Design-Maximum Values)

- Peak Inverse Plate Voltage# .................................. 38000 volts
- Peak Plate Current .................................. 110 mA
- Average Plate Current .................................. 2.2 mA
- Heater Voltage:
  - Absolute-maximum value .................. 3.65 volts
  - Absolute-minimum value .................. 2.65 volts

**CHARACTERISTIC, Instantaneous Value**

- Tube Voltage Drop (Approx.), for plate current of 7 mA ........ 70 volts

**X-RADIATION CHARACTERISTIC**

- X-Radiation, Maximum:
  - Statistical value controlled on a lot sampling basis .......... 25 mR/hr

# Pulse duration must not exceed 15% of a horizontal scanning cycle.
* The dc component must not exceed 30000 volts.

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.

3BY6
Refer to chart at end of section.
For replacement use type 3CS6.

3BZ6
Refer to type 6BZ6.

3CA3
Refer to chart at end of section.

**3CA3A**

**HALF-WAVE VACUUM RECTIFIER**

Glass octal type used as a rectifier in high-voltage pulse circuits of color television receivers. Outlines section, 14E; requires octal socket. Socket terminals 1, 3, 4, 5, 6, and 8 may be connected to terminal 7 or to a corona shield which connects to terminal 7. Socket terminals 4 and 6 may be used as tie points at or near cathode potential. For high-voltage and X-ray safety considerations, refer to page 93.

- Heater Voltage (ac) .................................. 3.6 volts
- Heater Current .................................. 0.225 ampere
- Direct Inter-electrode Capacitance (Approx.):
  - Plate to Heater, Cathode, and Internal Shield .......... 1.6 pF

**Pulsed Rectifier**

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

**MAXIMUM RATINGS** (Design-Maximum Values)

- Peak Inverse Plate Voltage# .................................. 38000 volts
- Peak Plate Current .................................. 100 mA
- Average Plate Current .................................. 2 mA
- Heater Voltage:
  - Absolute-maximum value .................. 4.14 volts
  - Absolute-minimum value .................. 3.06 volts

**CHARACTERISTIC, Instantaneous Value**

- Tube Voltage Drop for plate current of 11 mA ........ 60 volts

**X-RADIATION CHARACTERISTIC**

- X-Radiation, Maximum:
  - Statistical value controlled on a lot sampling basis .......... 25 mR/hr

# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
* The dc component must not exceed 30000 volts.

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube.
* Equipment design must be such that these maximum values are not exceeded.