Half-Wave Vacuum Rectifier

**DUODECAR TYPE**

**Electrical:**

Heater Characteristics and Ratings:
- Voltage (AC or DC) .................. 6.3 ± 0.6 volts
- Current at heater volts = 6.3 ........ 1.200 amp
- Peak heater-cathode voltage:
  - Heater negative with respect to cathode \(a\) ........ 5000 \(b\) max. volts
  - Heater positive with respect to cathode \(c\) ........ 300 \(d\) max. volts

Direct Interelectrode Capacitances (Approx.):
- P to (K,H) .................. 10 pf
- K to (P,H) .................. 8.0 pf
- H to K .................. 3.4 pf

**Mechanical:**

- Operating Position .................. Any
- Type of Cathode .................. Coated Unipotential
- Maximum Overall Length .................. 2.875"
- Seated Length .................. 2.250" to 2.500"
- Diameter .................. 1.062" to 1.188"
- Dimensional Outline .................. See General Section
- Bulb .................. T9
- Base .................. Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
- Basing Designation for BOTTOM VIEW .................. 12BL

![Diagram of Duodecar 12-Pin](image)

Pin 1 - Heater
Pin 2 - No Internal Connection
Pin 3 - Same as Pin 2
Pin 4 - Plate
Pin 5 - Same as Pin 2
Pin 6 - Same as Pin 2
Pin 7 - Cathode
Pin 8 - Same as Pin 2
Pin 9 - Same as Pin 2
Pin 10 - Plate
Pin 11 - Same as Pin 2
Pin 12 - Heater

**DAMPER SERVICE**

**Maximum Ratings, Design-Maximum Values:**

- For operation in a 525-line, 30-frame system
- Peak Inverse Plate Voltage \(b\) .................. 5000 max. volts
- Peak Plate Current .................. 1200 max. ma
- DC Plate Current .................. 200 max. ma
- Plate Dissipation .................. 6.5 max. watts

**Characteristics, Instantaneous Value:**

- Tube Voltage Drop for plate ma = 350 .................. 25 volts
a This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.
b The dc component must not exceed 900 volts.
c The dc component must not exceed 100 volts.
d Without external shield.
e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.