This tube is an indirectly heated half wave vacuum rectifier. Its small physical size compared with its high output current capabilities renders it useful for compact mobile and airborne equipment. The use of a top cap reduces the possibility of electrolysis of the glass and the likelihood of arc-over at high altitudes. The heater-cathode voltage rating is sufficient to allow the operation of the heater from a supply common to the other valves in the equipment, except when two or more valves are used for voltage multiplication. It is designed for Trustworthy operation under adverse conditions of vibration and mechanical shock.

MECHANICAL DATA

Coated Unipotential cathode.
Outline drawing .... BVA B9A valve outline with top cap No. 4. Bulb T-6\frac{1}{2}  
Top Cap ....................................................... C1-2 or C1-33  
Maximum diameter .................................................. \frac{5}{8}  
Maximum overall length .............................................. 3.9/32"  
Maximum seated height ............................................. 3"  
Pin Connections ..................................................... Basing 9BW.
Pin 1 - Internally connected.  Pin 6 - Internally connected.  
Pin 2 - Internally connected.  Pin 7 - Internally connected.  
Pin 3 - Cathode.  Pin 8 - Internally connected.  
Pin 4 - Heater.  Pin 9 - Internally connected.  
Pin 5 - Heater.

Top Cap-Plate.
Mounting position .................................................... any  
Maximum shock ............................................................ 500 g  
Vibration (continuous service) ......................................... 2\frac{1}{2} g  
Mechanical resonances ................................................ None below 100 c/s

ELECTRICAL DATA

Ratings
Heater voltage (nominal ac or dc) .................................. 6.3 volts  
Maximum heater-cathode voltage .................................... 900 volts  
Maximum peak inverse voltage ....................................... 1800 volts  
Maximum ac plate voltage (rms) ..................................... 625 volts

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Maximum steady state peak plate current ............................................ 900 mA
Maximum transient peak plate current .............................................. 3.0 amperes
Tube voltage drop (with 150 mA plate current) .................................. 25 volts
Maximum steady-state DC output current ......................................... 150 mA

Typical operating conditions in half-wave circuit with capacitor input to filter.
Heater voltage .......................................................... 6.3 6.3 volts
Heater current .......................................................... 1.1 1.1 amps
AC plate supply voltage (rms) .................................................. 625 500 volts
DC output current ....................................................... 125 150 mA
Effective plate supply impedance .............................................. 160 200 ohms
Input condenser ......................................................... 8 8 μF
DC output voltage ...................................................... 680 460 volts