

# BRIMAR

## VALVES

TYPE **6443**DATE  
ISSUE **1.54.**

### R.M.A. REGISTRATION DATA

6443  
DIODE

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 .....  $\frac{7}{8}$   
 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 $\mu$ F |
| DC output voltage .....                | 680 | 460 volts |