

**OA2WA**  
**OA3**  
**OA3A**  
**OA4G**

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.

**OB2**  
 INDUSTRIAL  
 TYPE

## VOLTAGE REGULATOR

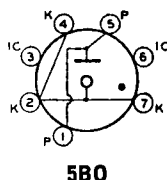
Miniature type cold-cathode, glow-discharge tube used in voltage regulator applications. Outlines section, 5D; requires miniature 7-contact socket.

### MAXIMUM RATINGS (Absolute-Maximum Values)

|                           |            |    |
|---------------------------|------------|----|
| Average Starting Current♦ | 75         | mA |
| DC Cathode Current        | 30         | mA |
| Frequency                 | 5 min.     | Hz |
| Ambient-Temperature Range | 0          | °C |
|                           | -55 to +90 |    |

### MAXIMUM CIRCUIT VALUES

|                 |                              |    |
|-----------------|------------------------------|----|
| Shunt Capacitor | 0.1                          | μF |
| Series Resistor | See Operating Considerations |    |



**5B0**

### CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

|                         | Min. | Av. | Max. |       |
|-------------------------|------|-----|------|-------|
| DC Anode-Supply Voltage | 133■ | —   | —    | volts |
| Anode Breakdown Voltage | —    | 115 | 133* | volts |
| Anode Voltage Drop      | 101● | 108 | 114* | volts |
| Regulation (5 to 30 mA) | —    | 1   | 4*   | volts |

♦ Averaged over starting period not exceeding 10 seconds. This starting period must be followed by a steady-state operating condition of at least 20 minutes, or tube performance will be impaired.

■ Not less than indicated supply voltage should be provided to insure "starting" throughout tube life.

\* Maximum individual tube value during useful life.

● Minimum individual tube value during useful life.

### Operating Considerations

Refer to type OA2.

**OB2WA**  
**OC2**

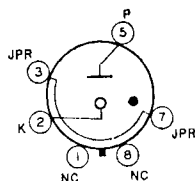
Refer to chart at end of section.

Refer to chart at end of section.

**OC3**  
 INDUSTRIAL  
 TYPE

## VOLTAGE REGULATOR

Glass octal type cold-cathode, glow-discharge tube used in voltage regulator applications. Outlines section, 22; requires octal socket.



**4AJ**

### MAXIMUM RATINGS (Absolute-Maximum Values)

|                           |            |    |
|---------------------------|------------|----|
| Average Starting Current♦ | 100        | mA |
| DC Cathode Current        | 40         | mA |
| Frequency                 | 5 min.     | Hz |
| Ambient-Temperature Range | 0          | °C |
|                           | -55 to +90 |    |

## MAXIMUM CIRCUIT VALUES

|                       |                              |         |
|-----------------------|------------------------------|---------|
| Shunt Capacitor ..... | 0.1                          | $\mu$ F |
| Series Resistor ..... | See Operating Considerations |         |

## CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

|                               | Min.               | Av. | Max. |       |
|-------------------------------|--------------------|-----|------|-------|
| DC Anode-Supply Voltage ..... | 133 $\blacksquare$ | —   | —    | volts |
| Anode Breakdown Voltage ..... | —                  | 115 | 133* | volts |
| Anode Voltage Drop .....      | 103 $\bullet$      | 108 | 116* | volts |
| Regulation (5 to 40 mA) ..... | —                  | 2   | 4*   | volts |

♦ Averaged over starting period not exceeding 10 seconds. This starting period must be followed by a steady-state operating condition of at least 20 minutes, or tube performance will be impaired.

■ Not less than indicated supply voltage should be provided to insure "starting" throughout tube life.

\* Maximum individual tube value during useful life.

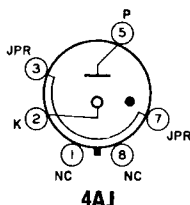
• Minimum individual tube value during useful life.

## Operating Considerations

Refer to type OA2. For circuit diagrams refer to next page.

Refer to chart at end of section.

OC3A



## VOLTAGE REGULATOR

**OD3**  
INDUSTRIAL  
TYPE

Glass octal type cold-cathode, glow-discharge tube used in voltage regulator applications. Outlines section, 22; requires octal socket.

## MAXIMUM RATINGS (Absolute-Maximum Values)

|                                 |            |    |
|---------------------------------|------------|----|
| Average Starting Current♦ ..... | 100        | mA |
| DC Cathode Current .....        | 40         | mA |
| Frequency .....                 | 5 min.     | Hz |
| Ambient-Temperature Range ..... | 0          | °C |
|                                 | —55 to +90 |    |

## MAXIMUM CIRCUIT VALUES

|                       |                              |         |
|-----------------------|------------------------------|---------|
| Shunt Capacitor ..... | 0.1                          | $\mu$ F |
| Series Resistor ..... | See Operating Considerations |         |

## CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

|                               | Min.               | Av. | Max. |       |
|-------------------------------|--------------------|-----|------|-------|
| DC Anode-Supply Voltage ..... | 185 $\blacksquare$ | —   | —    | volts |
| Anode Breakdown Voltage ..... | —                  | 160 | 185* | volts |
| Anode Voltage Drop .....      | 142 $\bullet$      | 153 | 165* | volts |
| Regulation (5 to 40 mA) ..... | —                  | 4   | 5.5* | volts |

♦ Averaged over starting period not exceeding 10 seconds. This starting period must be followed by a steady-state operating condition of at least 20 minutes, or tube performance will be impaired.

■ Not less than indicated supply voltage should be provided to insure "starting" throughout tube life.

\* Maximum individual tube value during useful life.

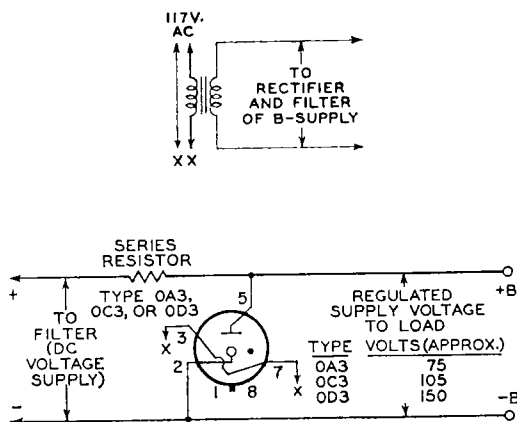
• Minimum individual tube value during useful life.

## Operating Considerations

Refer to type OA2. For circuit diagrams refer to next page.

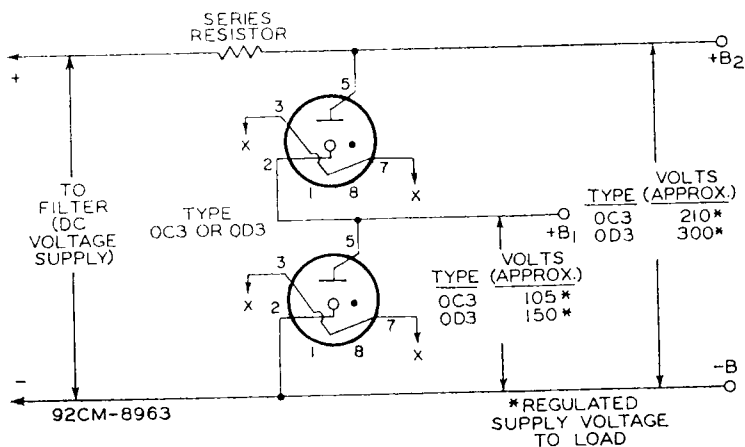
Refer to chart at end of section.

OD3A



92CS-19183

Typical circuit to provide regulated supply voltage of approximately 75, 105, or 150 volts to load. Removal of tube from socket removes voltage from load.



92CM-8963

Typical circuit using two OC3's, or two OD3's to provide regulated supply voltages of approximately 210 or 300 volts and 105 or 150 volts to load. Socket connections are so made that voltage on load is removed when either tube is taken from its socket.