

# Gas and Mercury-Vapor Thyatron

## NEGATIVE-CONTROL TRIODE TYPE

### GENERAL DATA

#### Electrical:<sup>a</sup>

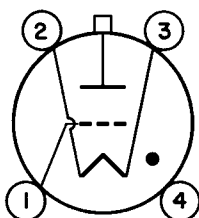
Filament, Coated:

|                                                            |        |       |
|------------------------------------------------------------|--------|-------|
| Voltage (AC or DC) . . . . .                               | 2.5    | volts |
| Current at 2.5 volts. . . . .                              | 21 ± 2 | amp   |
| Minimum heating time prior to<br>tube conduction . . . . . | 60     | sec   |
| Direct Interelectrode Capacitance (Approx.): <sup>b</sup>  |        |       |
| Grid to anode . . . . .                                    | 4      | μmf   |
| Ionization Time (Approx.) . . . . .                        | 10     | μsec  |
| Deionization Time (Approx.) . . . . .                      | 1000   | μsec  |
| Maximum Critical Grid Current . . . . .                    | 10     | μa    |
| Peak Tube Voltage Drop at anode<br>amperes = 20. . . . .   | 12     | volts |

#### Mechanical:

|                                             |                                                                      |
|---------------------------------------------|----------------------------------------------------------------------|
| Operating Position. . . . .                 | Vertical, base down                                                  |
| Maximum Overall Length. . . . .             | 9-1/2"                                                               |
| Maximum Diameter. . . . .                   | 2-9/16"                                                              |
| Weight (Approx.). . . . .                   | 9 oz                                                                 |
| Cap. . . . .                                | Medium (JEDEC No.C1-5)                                               |
| Socket. . . . .                             | Super-Jumbo 4-Contact                                                |
| Base. . . . .                               | Large-Metal-Shell Super-Jumbo 4-Pin<br>with Bayonet (JEDEC No.A4-18) |
| Basing Designation for BOTTOM VIEW. . . . . | 4BZ                                                                  |

Pin 1-Grid  
Pin 2-Filament  
Pin 3-Filament



Pin 4-No Internal  
Connection  
Cap-Anode

#### Thermal:

|                                                                                                          |            |
|----------------------------------------------------------------------------------------------------------|------------|
| Type of Cooling . . . . .                                                                                | Convection |
| Temperature Rise of Condensed Mercury to<br>Equilibrium Above Ambient<br>Temperature (Approx.) . . . . . | 30 °C      |

### GRID-CONTROLLED-RECTIFIER SERVICE<sup>a</sup>

#### Maximum and Minimum Ratings, Absolute-Maximum Values:

*For anode-supply frequency of 60 cps*

#### PEAK ANODE VOLTAGE:

|                  |           |       |
|------------------|-----------|-------|
| Forward. . . . . | 1500 max. | volts |
| Inverse. . . . . | 1500 max. | volts |

#### PEAK NEGATIVE GRID VOLTAGE:

|                                  |          |       |
|----------------------------------|----------|-------|
| Before tube conduction . . . . . | 500 max. | volts |
| During tube conduction . . . . . | 10 max.  | volts |



# 760/6858

## CATHODE CURRENT:

|                                |          |     |
|--------------------------------|----------|-----|
| Peak . . . . .                 | 77 max.  | amp |
| Average <sup>c</sup> . . . . . | 6.4 max. | amp |
| Fault . . . . .                | 770 max. | amp |

## CONDENSED-MERCURY TEMPERATURE RANGE

|                                    |            |    |
|------------------------------------|------------|----|
| (Operating) <sup>d</sup> . . . . . | -40 to +80 | °C |
|------------------------------------|------------|----|

<sup>a</sup> With circuit returns to filament-transformer center-tap.

<sup>b</sup> Without external shield.

<sup>c</sup> Averaged over any interval of 15 seconds maximum.

<sup>d</sup> For longest life, the operating condensed-mercury temperature range after warm-up should be kept between +40° and +80° C which corresponds approximately to +10° to +50° C ambient.

