

# 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. . . . .  $6.3 \pm 0.8$  amp

Minimum heating time prior to  
tube conduction . . . . . 15 sec

Direct Interelectrode Capacitance (Approx.):<sup>b</sup>

Grid to anode . . . . . 3  $\mu\text{f}$

Ionization Time (Approx.) . . . . . 10  $\mu\text{sec}$

Deionization Time (Approx.) . . . . . 1000  $\mu\text{sec}$

Maximum Critical Grid Current . . . . . 10  $\mu\text{a}$

Peak Tube Voltage Drop at anode  
amperes = 5 . . . . . 8 volts

#### Mechanical:

Operating Position. . . . . Vertical, base down

Maximum Overall Length. . . . . 4-3/8"

Diameter. . . . . 1.438" to 1.562"

Weight (Approx.) . . . . . 3 oz

Bulb. . . . . T12

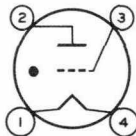
Socket. . . . . Small 4-Contact

Base. . . . . Medium-Shell Small 4-Pin  
with Bayonet (JEDEC No. A4-10)

Basing Designation for BOTTOM VIEW. . . . . .4D

Pin 1 - Filament

Pin 2 - Anode



Pin 3 - Grid

Pin 4 - Filament

#### Thermal:

Type of Cooling . . . . . Convection

Temperature Rise of Condensed Mercury to Equi-  
librium Above Ambient Temperature (Approx.) . 30  $^{\circ}\text{C}$

#### 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. . . . . 1250 max. volts

Inverse. . . . . 1250 max. volts

PEAK NEGATIVE GRID VOLTAGE:

Before tube conduction . . . . . 500 max. volts

During tube conduction . . . . . 10 max. volts



## CATHODE CURRENT:

|                                |         |     |
|--------------------------------|---------|-----|
| Peak. . . . .                  | 8 max.  | amp |
| Average <sup>c</sup> . . . . . | 1 max.  | amp |
| Fault . . . . .                | 80 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 5 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.

