



3C23

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**GAS-AND-MERCURY-VAPOR THYRATRON**

NEGATIVE-CONTROL TRIODE TYPE

**GENERAL DATA****Electrical:**

Filament, Coated:

Voltage . . . . . 2.5 ± 5% . . . . . ac or dc volts ←

Current at 2.5 volts. . . . . 7 . . . . . amp

Minimum heating time prior to  
tube conduction . . . . . 15 secDirect Interelectrode Capacitance (Approx.):<sup>o</sup>

Grid to anode . . . . . 1.8 μμf ←

Ionization Time (Approx.):

For conditions: dc anode volts = 100,  
peak grid volts = +30, and peak  
anode amperes = 6 . . . . . 3 μsec ←

Deionization Time (Approx.):

For conditions: dc anode volts = 120,  
dc grid-supply volts = -20, grid re-  
sistor (ohms) = 10000, and dc  
anode amperes = 1.5 . . . . . 360 μsec ←For conditions: dc anode volts = 120,  
dc grid-supply volts = -500, grid re-  
sistor (ohms) = 100000, and dc  
anode amperes = 1.5 . . . . . 60 μsec

Anode Voltage Drop (Approx.). . . . . 15 volts

**Mechanical:**

Mounting Position . . . . . Vertical, base down

Maximum Overall Length. . . . . 6-1/8"

Seated Length . . . . . 5-1/4" ± 1/4"

Maximum Diameter . . . . . 2-1/16"

Cooling . . . . . Natural circulation of air around tube

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

Bulb. . . . . ST-16

Cap. . . . . Medium (JETEC No. C1-5) ←

Base. . . . . Medium-Shell Small 4-Pin ←

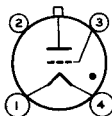
with Bayonet (JETEC No. A4-10)

Basing Designation for BOTTOM VIEW . . . . . 3G ←

Pin 1 - Filament

Pin 2 - No Con-  
nection

Pin 3 - Grid



Pin 4 - Filament

Cap - Anode

**CONTROL SERVICE****Maximum Ratings, Absolute Values:** For supply frequency up to 400 cpsOperating Condensed-Mercury  
Temperature Range

-40° to +100°C -40° to +80°C

**PEAK ANODE VOLTAGE:**

Forward . . . . . 200 max. 1250 max. volts

Inverse . . . . . 200 max. 1250 max. volts

<sup>o</sup> without external shield.

← Indicates a change.

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# GAS-AND-MERCURY-VAPOR THYRATRON

Operating Condensed-Mercury  
Temperature Range  
-40° to +100°C -40° to +80°C

## GRID VOLTAGE:

Peak or DC, before tube conduction . . . . .	-500 max.	-500 max.	volts
Average <sup>▲</sup> , during tube conduction . . . . .	-10 max.	-10 max.	volts

## ANODE CURRENT:

Peak . . . . .	6 max.	6 max.	amp
Average <sup>●</sup> . . . . .	1.5 max.	1.5 max.	amp
Fault, for duration of 0.1 second max. . . . .	120 max.	120 max.	amp

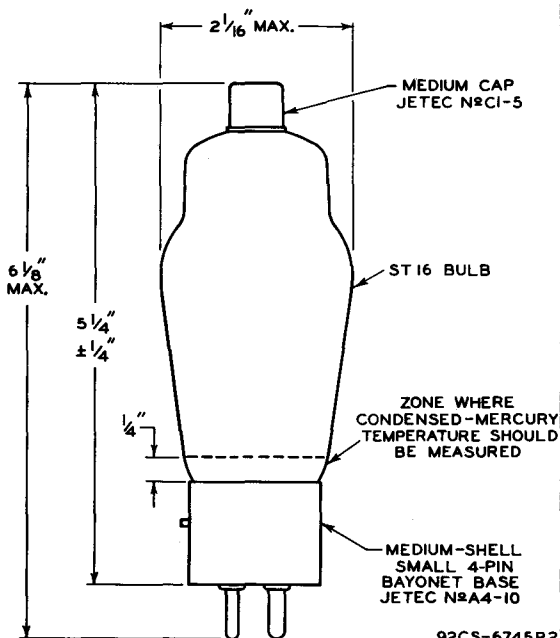
## GRID CURRENT:

Average <sup>●</sup> . . . . .	+0.01 max.	+0.01 max.	amp
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▲ Averaged over one conducting period.

● Averaged over any interval of 5 seconds maximum.

● Averaged over period of grid conduction.



92CS-6745R2



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# GAS - AND - MERCURY-VAPOR THYRATRON

## OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE:  
 $E_f = 2.5$  VOLTS AC  $\pm 5\%$ ; CIRCUIT RETURNS TO CENTER TAP OF FILAMENT TRANSFORMER. THE RANGE INCLUDES INITIAL AND LIFE VARIATIONS OF INDIVIDUAL TUBES. GRID RESISTOR = 0 TO 100000 OHMS. CONDENSED-MERCURY TEMPERATURE =  $-40^\circ\text{C}$  TO  $+80^\circ\text{C}$ .

