



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 sec

Direct Interelectrode Capacitance (Approx.):^o

Grid to anode 1.8 μf ←

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 resistor (ohms) = 10000, and dc
anode amperes = 1.5 360 μsec ←

For conditions: dc anode volts = 120,
dc grid-supply volts = -500, grid resistor (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 ←

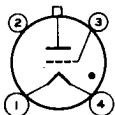
with Bayonet (JETEC No. A4-10)

Basing Designation for BOTTOM VIEW 3G ←

Pin 1 - Filament

Pin 2 - No Connection

Pin 3 - Grid



Pin 4 - Filament

Cap - Anode

CONTROL SERVICE

Maximum Ratings, Absolute Values: For supply frequency up to 400 cps

Operating Condensed-Mercury
Temperature Range

-40° to +100° -40° to +80°

PEAK ANODE VOLTAGE:

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

^o without external shield.

← Indicates a change.

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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 [▲] , during tube conduction	-10 max.	-10 max.	volts

ANODE CURRENT:

Peak	6 max.	6 max.	amp
Average [●]	1.5 max.	1.5 max.	amp
Fault, for duration of 0.1 second max.	120 max.	120 max.	amp

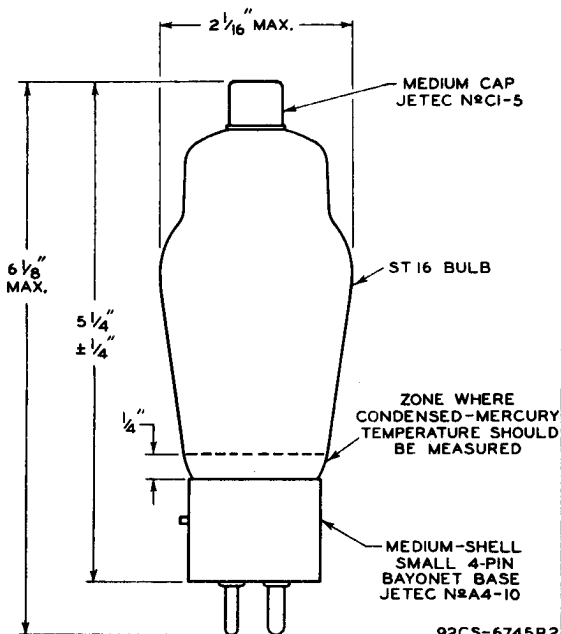
GRID CURRENT:

Average [●]	+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.





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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°C TO $+80^\circ\text{C}$.

