3C23

GAS-AND-MERCURY-VAPOR THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

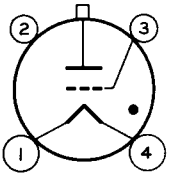
Electrical:

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	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 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°C	-40° to +80°C	
PEAK ANODE VOLTAGE:			
Forward	200 max.	1250 max.	volts
Inverse	200 max.	1250 max.	volts

[o] without external shield.

← Indicates a change.

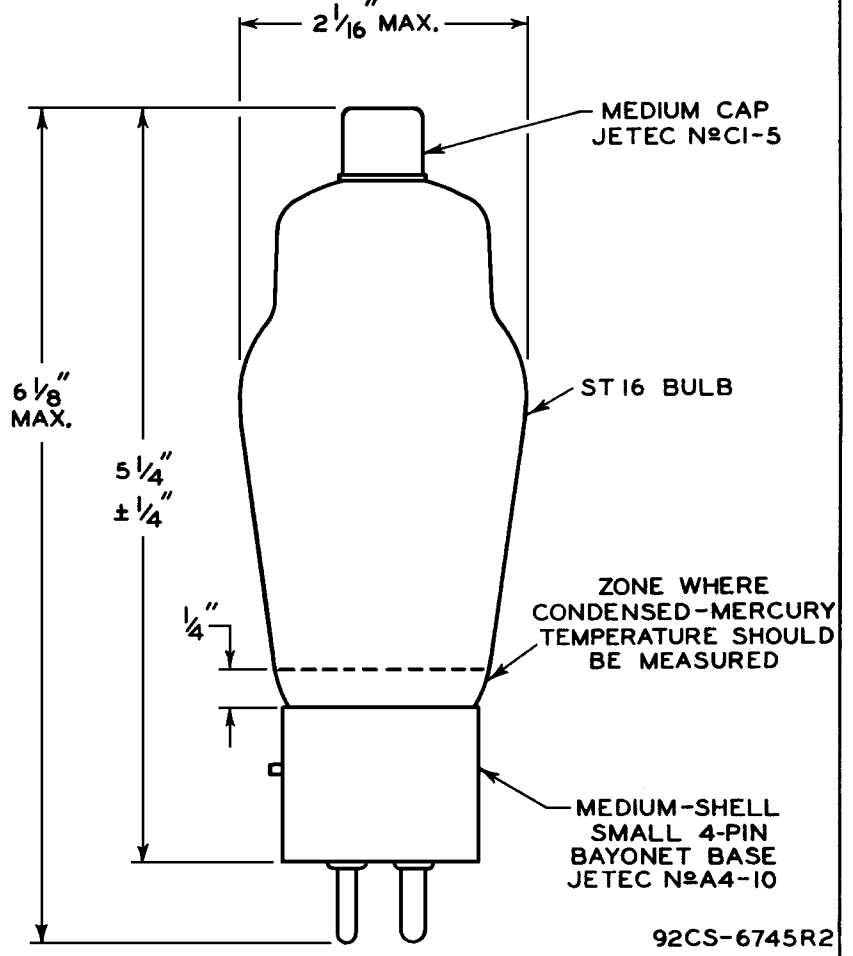
TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

3C23

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▲, 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

▲ Averaged over one conducting period.
● Averaged over any interval of 5 seconds maximum.
🌡 Averaged over period of grid conduction.



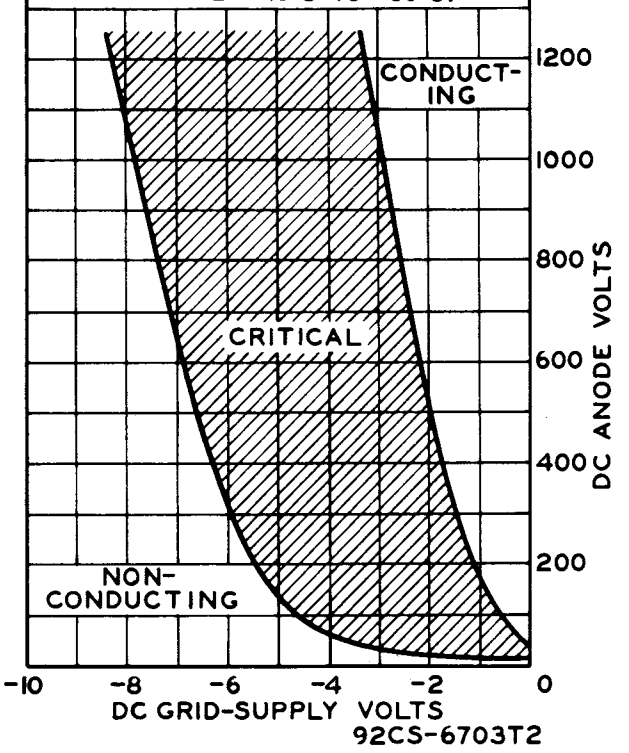
TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

3C23

GAS-AND-MERCURY-VAPOR THYRATRON

OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE: E_f=2.5 VOLTS AC ±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°C.



TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY