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# HALF-WAVE MERCURY-VAPOR RECTIFIER

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:	Min.	Av.	Max.	
Voltage . . . . .	4.75	5.0	5.25	volts
Current at 5 volts . . . . .	-	4.5	4.9	amp

### Cathode:

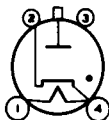
Heating Time, before tube conduction . . .	5	-	-	minutes
Tube Voltage Drop . . . . .	-	15	-	volts
Critical Anode Voltage . . . . .	-	-	50	volts

### Mechanical:

Mounting Position . . . . .	Vertical, Base Down
Maximum Overall Length . . . . .	7"
Seated Length . . . . .	6-1/4" ± 1/4"
Maximum Diameter . . . . .	3"
Bulb . . . . .	ST-23
Cap . . . . .	Medium (JETEC No. C1-5)
Base . . . . .	Medium-Shell Small 4-Pin, Bayonet (JETEC No. A4-10)

### BOTTOM VIEW

Pin 1 - Heater  
Pin 2 - Cathode  
(Anode Return)



Pin 3 - No Conn.  
Pin 4 - Heater, Cathode Cap - Anode

### Temperature Control:

**Heating**--When the ambient temperature is so low that the normal rise of condensed-mercury temperature above the ambient temperature will not bring the condensed-mercury temperature up to the minimum value of the operating ranges specified under *Maximum Ratings*, some form of heat-conserving enclosure or auxiliary heater will be required.

**Cooling**--When the operating conditions are such that the maximum value of the operating condensed-mercury temperature range is exceeded, provision should be made for forced-air cooling sufficient to prevent exceeding the maximum value.

### Temperature Rise of Condensed Mercury to Equilibrium Above Ambient

Temperature (Approx.):\*

No Load . . . . .	22 °C
Full Load . . . . .	28 °C

\* With heater volts = 4.75 and no heat-conserving enclosure.

← Indicates a change

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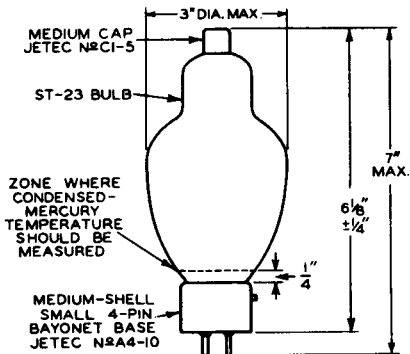
# HALF-WAVE MERCURY-VAPOR RECTIFIER

## HALF-WAVE RECTIFIER

Maximum Ratings, Absolute Values: Up to 150 cps

	Operating Condensed-Mercury Temperature Range		
	30° to 80°C	30° to 60°C	
PEAK INVERSE ANODE VOLTAGE . . . . .	2000 max.	5000 max.	volts
CATHODE CURRENT:			
Peak . . . . .	15 max.	15 max.	amp
Average <sup>■</sup> . . . . .	2.5 max.	2.5 max.	amp
Fault, for duration of 0.1 second max.	200 max.	200 max.	amp

■ Averaged over any interval of 15 seconds maximum.



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APRIL 1, 1953

TUBE DEPARTMENT

DATA

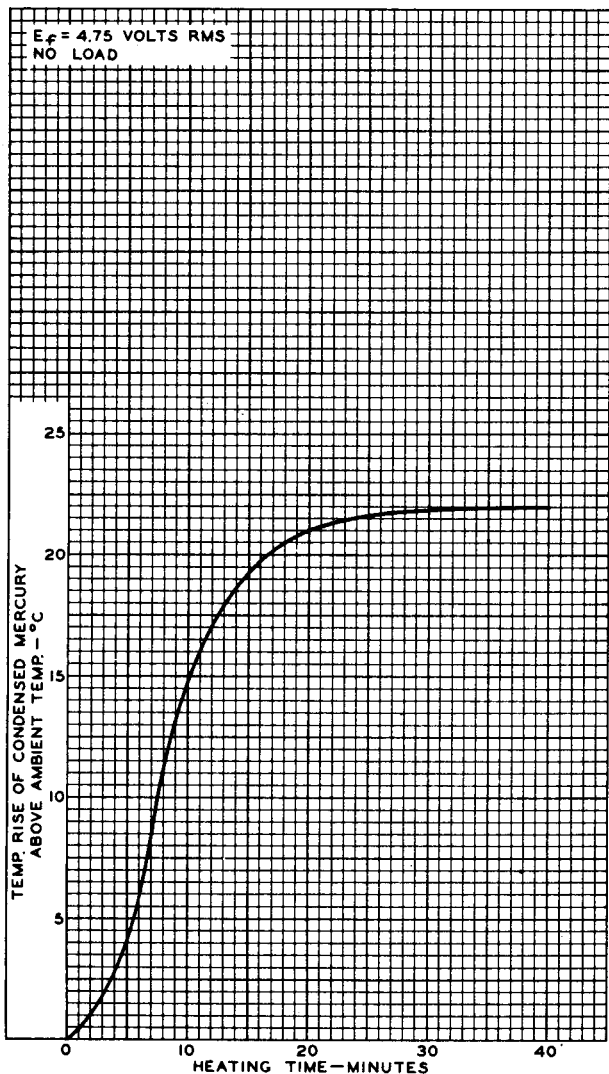
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# RATE OF RISE OF COND.-MERCURY TEMPERATURE



OCT. 28, 1952

TUBE DEPARTMENT  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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