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# HALF-WAVE GAS RECTIFIER

## GENERAL DATA

### Electrical:

Filament, Coated:

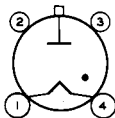
Voltage . . . . .	2.5 ± 5%	. . . . .	ac volts
Current at 2.5 volts. . . . .	5	. . . . .	amp
Minimum heating time at rated voltage. . . . .	15	. . . . .	sec

### Mechanical:

Operating Position. . . . .	Any
Maximum Overall Length. . . . .	6-5/16"
Seated Length. . . . .	5-1/4" ± 7/16"
Maximum Diameter. . . . .	2-1/16"
Weight (Approx.). . . . .	3 oz
Bulb. . . . .	T16
Cap. . . . .	Medium (JETEC No. C1-5)
Base. . . . .	Medium-Shell Small 4-Pin with Bayonet (JETEC No. A4-10)

Basing Designation for BOTTOM VIEW. . . . . 4P

- Pin 1 - Filament
- Pin 2 - No Connection
- Pin 3 - No Connection



- Pin 4 - Filament,  
Cathode  
Shield
- Cap - Anode

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### Maximum Ratings, Absolute Values:

*For anode-supply frequencies up to 500 cps*

PEAK INVERSE ANODE VOLTAGE. . . . .	4500 max.	volts
ANODE CURRENT:		
Peak. . . . .	2 max.	amp
Average*. . . . .	0.5 max.	amp
Fault, for duration of 0.1 second maximum. . . . .	20 max.	amp
AMBIENT-TEMPERATURE RANGE . . . . .	-75 to +90	°C

### CHARACTERISTICS RANGE VALUES<sup>#</sup> FOR EQUIPMENT DESIGN

	Note	Min.	Max.	
Filament Current. . . . .	1	4.6	5.4	amp
Critical Anode Voltage. . . . .	2	-	110	volts
Peak Tube Voltage Drop. . . . .	3	-	14	volts

Note 1: With 2.5 volts rms on filament.

Note 2: With 2.38 volts rms on filament.

Note 3: With 2.5 volts rms on filament, peak anode current of 2 amperes provided by half-cycle pulse from a 60-cps sine wave and recurring approximately once a second. Tube drop is measured by an oscilloscope connected between anode and center-tap of filament transformer.

\* #  
: See next page.

← Indicates a change.

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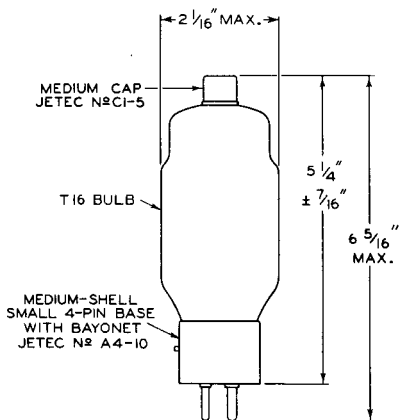
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\* Averaged over any period of 30 seconds maximum.

# Throughout tube life.

### OPERATING CONSIDERATIONS

If the *anode return* of each tube is not connected to the center-tap of the filament-supply winding, the return should be made to that side of the filament to which the cathode shield is connected.



92CM-6555R3



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For Circuit Figures, see Front of this Section

CIRCUIT	MAX. TRANS. SEC. VOLTS (RMS) $E$	APPROX. DC OUTPUT VOLTS TO FILTER $E_{av}$	MAX. DC OUTPUT AMPERES $I_{av}$	MAX. DC OUTPUT KW TO FILTER $P_{dc}$		
Fig. 1 Half-Wave Single-Phase In-Phase Operation	3100	1400	0.5	0.7		
Fig. 2 Full-Wave Single-Phase In-Phase Operation	1500	1400	1.0	1.4		
Fig. 3 Series Single-Phase In-Phase Operation	3100	2900	1.0	2.9		
Fig. 4 Half-Wave Three-Phase In-Phase Operation	1800	2200	1.5	3.3		
Fig. 5 Parallel Three-Phase Quadrature Operation	1800	2200	3.0	6.6		
Fig. 6 Series Three-Phase Quadrature Operation	1800	4300	1.5	6.4		
Fig. 7 Half-Wave Four-Phase Quadrature Operation	1500	2000	Resis- tive Load 1.8	Induc- tive Load 2.0	Resis- tive Load 3.6	Induc- tive Load 4.0
Fig. 8 Half-Wave Six-Phase Quadrature Operation	1500	2200	Resis- tive Load 1.9	Induc- tive Load 2.0	Resis- tive Load 4	Induc- tive Load 4.4