Half-Wave Vacuum Rectifier

ELECTRICAL

Bogey Values

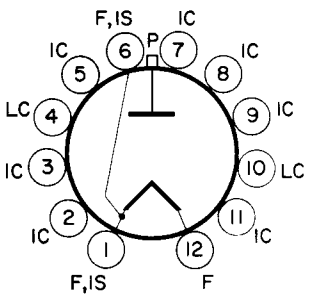
Filament (Coated) Voltage, AC or DC	**1.25 V**
Filament Current	**0.2 A**
Direct Interelectrode Capacitance (Approx.)	
Without external shield	
Plate to filament	1.6 pF

MECHANICAL

Operating Position	**Any**
Type of Cathode	**Coated Filament**
Maximum Overall Length	**3.125 in**
Seated Length	**2.500 to 2.750 in**
Diameter	**1.062 to 1.188 in**
Dimensional Outline (JEDEC No.9-98)	**See *General Section***
Envelope	**JEDEC T9**
Caps (Alternates)	
Small (JEDEC No.C1-1)	
Small with Tubular Support (JEDEC No.C1-34)	
Base	**Small-Button Duodecar 12-Pin (JEDEC No.E12-70)**

TERMINAL DIAGRAM (Bottom View)

Pin 1 – Filament, Internal Shield
Pin 2 – Do Not Use[a]
Pin 3 – Do Not Use[a]
Pin 4 – See **Note**
Pin 5 – Do Not Use[a]
Pin 6 – Same as Pin 1
Pin 7 – Do Not Use[a]
Pin 8 – Do Not Use[a]
Pin 9 – Do Not Use[a]
Pin 10 – See **Note**
Pin 11 – Do Not Use[a]
Pin 12 – Filament
Cap – Plate



12GV

Note: *May be used only under conditions specified in Operating Considerations.*

PULSED-RECTIFIER SERVICE

Design-Maximum Ratings

For operation in a 525-line, 30-frame system

Inverse Plate Voltage		
Total dc and peak[b]	26000	V
DC	22000	V
Peak Plate Current	50	mA
Average Plate Current	0.5	mA
Filament Voltage, AC or DC	1.05 to 1.45	V

Characteristics, Instantaneous Value

Tube Voltage Drop for plate mA = 7	225	V

[a] Socket terminals 2, 3, 5, 7, 8, 9, and 11 should not be used as tie points.

[b] This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

◄ Indicates a change.

OPERATING CONSIDERATIONS

Socket Connections. Socket terminals 4 and 10 may be used as tie points for components at or near the cathode potential; otherwise, do not use.

The high voltages at which the 1AD2 is operated are very dangerous. Great care should be taken in the design of equipment to prevent the operator from coming in contact with these high voltages. Particular care against fatal shock should be taken in the measurement of filament voltage. Under all circumstances, circuit parts which may be at high potentials should be enclosed or adequately insulated.

X-Radiation. The voltages employed in some television receivers and other high-voltage equipment are sufficiently high that high-voltage rectifier tubes may produce *X-radiation* which can constitute a health hazard unless such tubes are adequately shielded. Relatively simple shielding should prove adequate, but the need for this precaution should be considered in equipment design.