

Half-Wave Vacuum Rectifier

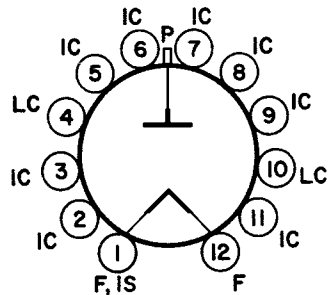
Electrical:

Filament Characteristics and Ratings:

Voltage (AC or DC)	1.25 ± 0.2	volts
Current at filament volts = 1.25.	0.200	amp
Direct Interelectrode Capacitance (Approx.): ^a		
P to F.	1.6	pf

Mechanical:

Operating Position.	Any
Type of Cathode	Coated Filament
Maximum Overall Length.	3.375"
Seated Length	2.750" to 3.000"
Diameter.	1.062" to 1.188"
Bulb.	T9
Cap	Small (JEDEC No.C1-1) or Small with Tubular Support (JEDEC No.C1-34)
Base.	Small-Button Duodecar 12-Pin (JEDEC No.E12-70)
Basing Designation for BOTTOM VIEW.	12DQ
Pin 1-Filament, Internal Shield	
Pin 2-Do Not Use ^b	
Pin 3-Do Not Use ^b	
Pin 4-See NOTE	
Pin 5-Do Not Use ^b	
Pin 6-Do Not Use ^b	
Pin 7-Do Not Use ^b	
Pin 8-Do Not Use ^b	
Pin 9-Do Not Use ^b	
Pin 10-See NOTE	
Pin 11-Do Not Use ^b	
Pin 12-Filament Cap-Plate	



NOTE: May be used only under conditions specified in Operating Considerations

PULSED-RECTIFIER SERVICE

Maximum Ratings, Design-Maximum Values:

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

Inverse Plate Voltage:		
Total dc and peak ^d	26000 max.	volts
DC.	22000 max.	volts
Peak Plate Current.	50 max.	ma
Average Plate Current	0.5 max.	ma

Characteristics, Instantaneous Value:

Tube Voltage Drop for plate ma. = 7	225	volts
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^a without external shield.

^b Socket terminals 2, 3, 5, 6, 7, 8, 9, and 11 should not be used as tie points.

^c As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.



1AD2

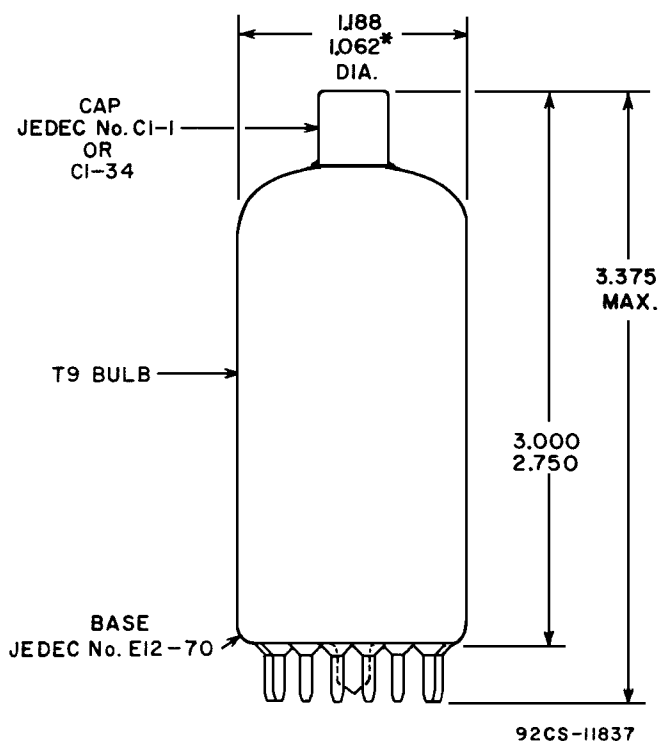
^d This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

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.



DIMENSIONS IN INCHES

* Applies to minimum diameter except in area of seal.