

Half-Wave Vacuum Rectifier

DUODECAR TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) 2.5 ± 0.4 volts

Current at heater volts = 2.5 0.300 amp

Direct Interelectrode Capacitance

(Approx.):^a

Plate to cathode & internal

shield & heater 1.4 pf

Mechanical:

Operating Position Any

Type of Cathode Coated Unipotential

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 12DG

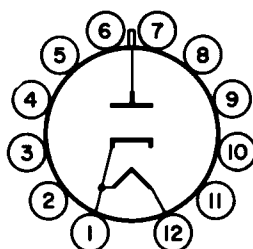
Pin 1 - Cathode,
Internal
Shield,
Heater

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 - Heater

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 30000 max. volts

DC 24000 max. volts

PEAK PLATE CURRENT 80 max. ma

AVERAGE PLATE CURRENT 1.5 max. ma

Characteristics, Instantaneous Value:

Tube Voltage Drop for plate ma. = 7 100 volts

^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.



2AH2

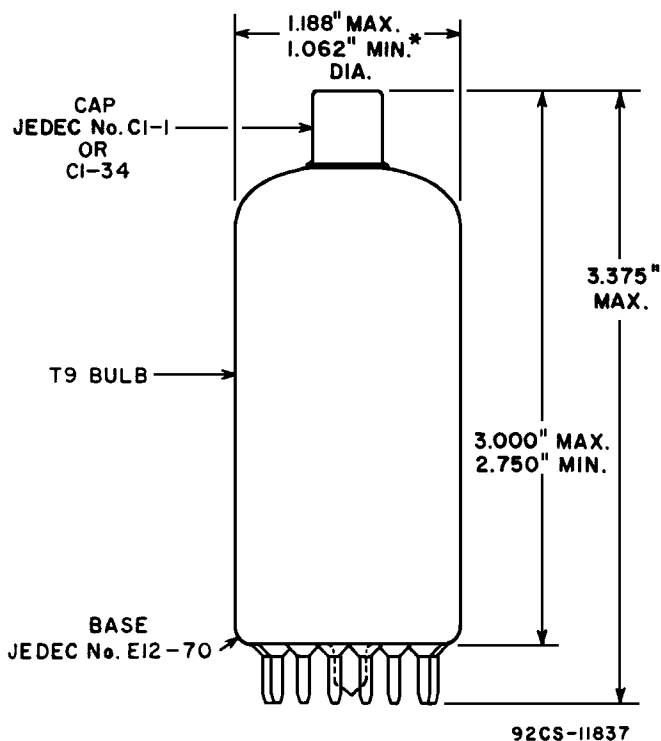
- ^d This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

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 2AH2 is operated are very dangerous. Great care should be taken in the design of apparatus 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.



* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.