



TENTATIVE DATA

MECHANICAL DATA

Dimensions	Per Outline
Envelope	T-20
Cap	Medium metal, C1-5
Base	Super-Jumbo 4 pin with bayonet, A4-18 with ceramic insert
Mounting Position (1)	Any

ELECTRICAL DATA AND OPERATING CONDITIONS

Ratings (Absolute)

	Max.	Min.
Heater voltage	6.3 + 5%	-10% Vac
Cathode heating time		180 sec
Starting anode voltage		2500 Vdc
Peak anode voltage (2)	8.0 kv	
Peak inverse anode voltage (3)	8.0 kv	5% of peak anode voltage
Peak anode current	90 amps	
Average anode current	100 mAdc	
Rate of rise (cathode current)	1000 amps/μsec	
Dissipation factor (4)		
Grid drive pulse (5)		
Peak grid voltage		175 v
Time of rise	0.5 μsec	
Grid pulse duration		2 μsec
Impedance of grid drive circuit	1500 ohms	
Peak inverse grid voltage	200 v	
Ambient temperature	-50 to +90°C	

Electrical Characteristics

Heater current at 6.3 Vac	5.5 to 6.7 Aac
Anode delay time (max.) (6)	0.6 μsec
Time jitter (Variation in firing time) (max.)	0.01 μsec

APPLICATION DATA

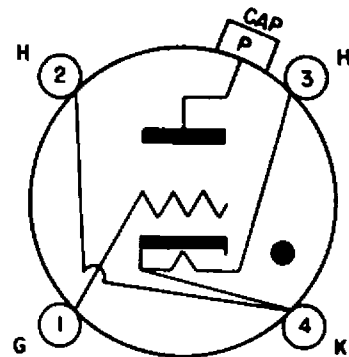
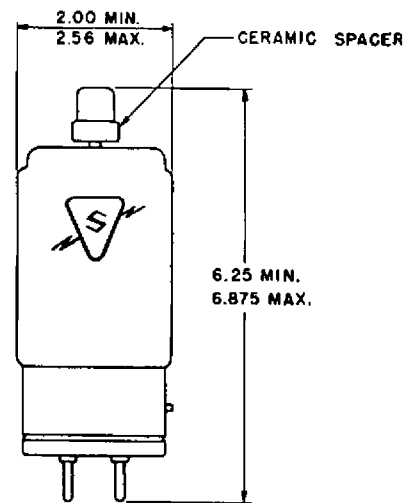
The Sylvania Type 4C35A is a hot-cathode grid-controlled hydrogen thyratron designed for pulsing service at high repetition rates, high peak currents, and high voltages. It is specifically designed to be used in place of the type 4C35 in circuits requiring low time jitter (variation in firing time from pulse to pulse).

The Type 4C35A may be used in a wide variety of applications which will take advantage of such features as:

- | | |
|--------------------------|---|
| 1. Low deionization time | 4. High plate voltages |
| 2. Low time jitter | 5. Moderate trigger requirements |
| 3. High peak currents | 6. Ability to be operated at zero bias. |

QUICK REFERENCE DATA

The Sylvania Type 4C35A is a hydrogen thyratron designed for pulsing service at high repetition rates, high peak currents and high voltages. It is similar to the Type 4C35 with improved time jitter characteristics.



4C35A

PAGE 2 OF 2 PAGES

NOTES:

- (1) The tube may be clamped by the base and/or by the bulb in the area up to 2½ inches above the top of the base.

No cooling stream of air should be directly applied to the tube envelope.

The tube should be kept away from stray fields which could ionize gas in the tube.

- (2) When the plate supply voltage is applied instantaneously, the plate voltage should not read 7.0 kv in less than 0.04 seconds.
- (3) In pulsed operation, the peak inverse anode voltage, exclusive of a spike of 0.05 μsec maximum duration, should not exceed 2.5 kv during the first 25 μsec after the pulse.
- (4) The maximum dissipation factor depends on the peak forward anode voltage in volts (epy), the peak anode current in amps (ib), and the pulse repetition rate in pulses per second (pr) according to the formula:

$$epy \times ib \times pr = 2.0 \times 10^9 \text{ max.}$$

This formula is applicable for pulse repetition rates in the neighborhood of 2800 pps. For rates in excess of this, special caution should be exercised.

- (5) Measured at the tube socket with thyatron grid disconnected.
- (6) The time interval between the point on the rising portion of the grid pulse which is 26% of the maximum unloaded pulse amplitude and the point where anode conduction takes place.