

# ENGINEERING DATA

E-284 3-17-58

**CBS-HYTRON**

TUBES AND SEMICONDUCTORS

A Division of Columbia Broadcasting System, Inc.  
Danvers, Massachusetts

## CBS TYPE 7205

### COLD - CATHODE TRIGGER TUBE

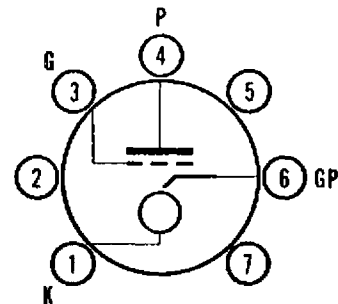
The 7205 is a cold-cathode miniature trigger and timer tube used in applications where high hold-off voltage, short anode delay times, minimum anode delay variation and high pulse currents are required. Because of its special construction the 7205 will withstand a wide ambient temperature range, impact shocks with 100g peaks, and severe vibrational stresses. Because of its dark-start design characteristic, the 7205 will operate in sealed enclosures and after storage periods without requiring incident light or other extraneous energies to initiate the glow discharge.

#### MECHANICAL DATA

Cathode	cold
Bulb	T5 1/2
Base	Min. button 7 pin, 2" flying leads
Mounting Position	Any
Overall Height ( not including leads )	1 3/4 inch
Maximum Diameter	3/4 inch

#### LEAD CONNECTIONS

- Pin 1. Cathode
- Pin 2. Omitted
- Pin 3. Grid
- Pin 4. Anode
- Pin 5. Omitted
- Pin 6. Glow Pin
- Pin 7. Omitted



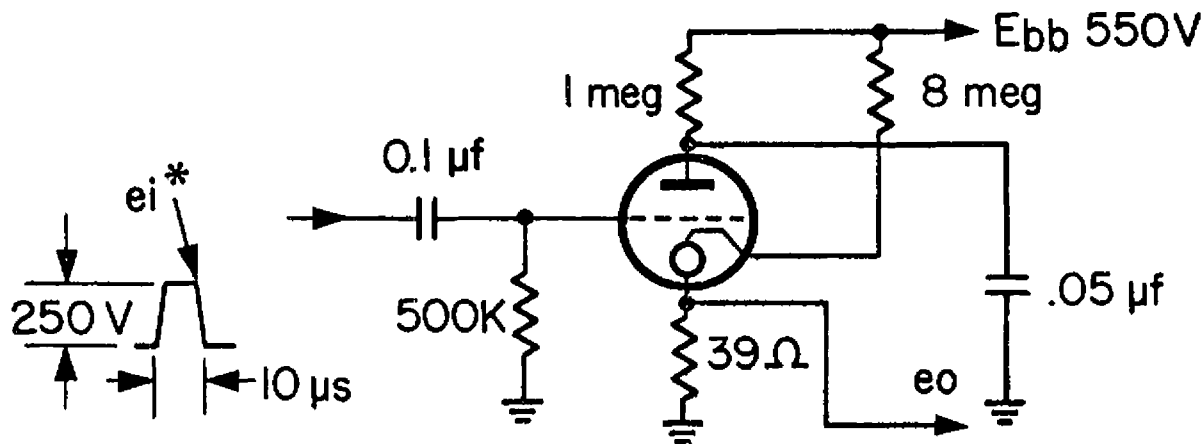
## ELECTRICAL DATA

### Maximum Ratings (Absolute Maximum Values)

Anode Operating Voltage	1000 volts
Hold-off Voltage	2000 volts
Cathode Current Peak	500 amp
Glow Current	100 $\mu$ A
Grid Resistor	2.0 meg
Discharge Capacitor	0.5 $\mu$ f
Power Input	1.0 W
Grid Bias	$\pm$ 80 volts
Grid Pulse Current	40 $\mu$ A
Output Pulse Duration	10 $\mu$ s
Ambient Temperature Range	-55 to + 85 °C
Anode Delay Time	4.0 $\mu$ s
Anode Delay Time Variation	0.4 $\mu$ s
Pulse Repetition Rate	20 ppm

### Typical Operation (For circuit below)

Anode Supply Voltage	550 volts
Grid Voltage	0 volts
Glow Current	50 $\mu$ A



\* May be triggered manually by applying d-c momentarily to grid.

### Minimum Conditions

Anode Operating Voltage, d-c	500 volts
Cathode Current Peak	10 amp
Glow Current	30 $\mu$ A
Grid Resistor	0.25 meg
Grid Pulse Duration	10 $\mu$ s
Grid Pulse Amplitude	230 volts