

# PULSE MODULATOR TRIODE

## DESCRIPTION

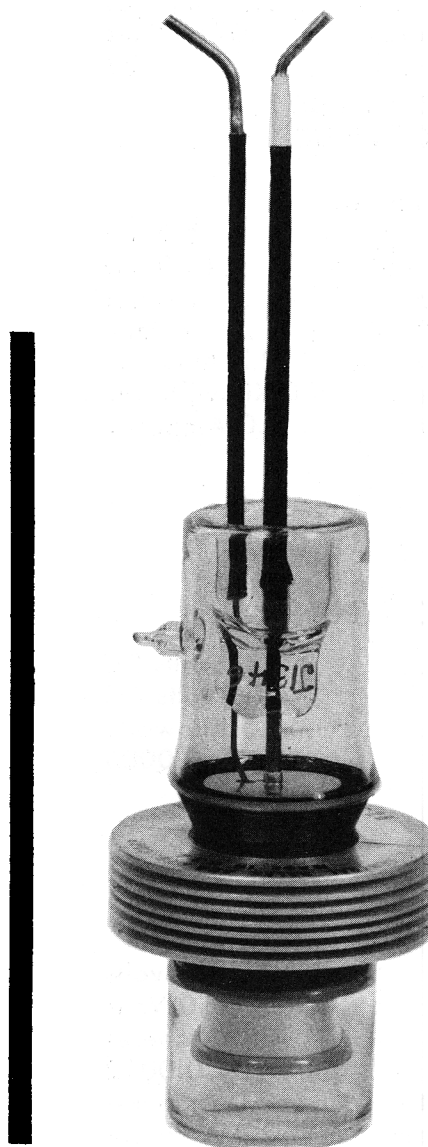
The 4C28 is a physically small transmitting triode for use in small loran and shoran; radar, and other types of pulse transmitters. This forced air cooled tube features an oxide coated, unipotential cathode, light weight at high power output and may be used either as a final or a driver for larger tubes.

## SPECIFICATIONS

### PHYSICAL

Overall Length . . . . . 3<sup>7</sup>/<sub>8</sub> inches  
Overall Diameter . . . . . 2 inches  
Weight . . . . . 6 ounces  
Mounting Position . . . . . Vertical  
Type of Cooling . . . . . Forced air  
Required Air Flow on Anode . . . . (NOTE 1)  
Maximum Incoming Air Temperature . . 45°C  
Maximum Glass Seal Temperature . . 180°C

NOTE 1 — For an anode dissipation of 150 watts, an air blast of at least 5 cfm should be directed upon the anode cooling fins and a blast of 1 cfm on the grid seal and lead.



PULSE  
MODULATOR  
TRIODE  
TYPE  
4C28

# Central ELECTRONIC MANUFACTURERS

DENVILLE, NEW JERSEY

6.5 Kilowatts

## ELECTRICAL

Filament Oxide coated unipotential cathode  
 Filament Voltage . . . . . 6.0 Volts  
 Filament Current . . . . . 6.5 Amperes  
 Filament Starting Surge  
 Current . . . . . 13.0 Amperes  
 Filament Cold Resistance . . . . . 0.071 Ohms  
 Amplification factor . . . . . 22

$E_c = -23$  Volts DC  
 $E_b = 500$  Volts DC

### Interelectrode Capacitances

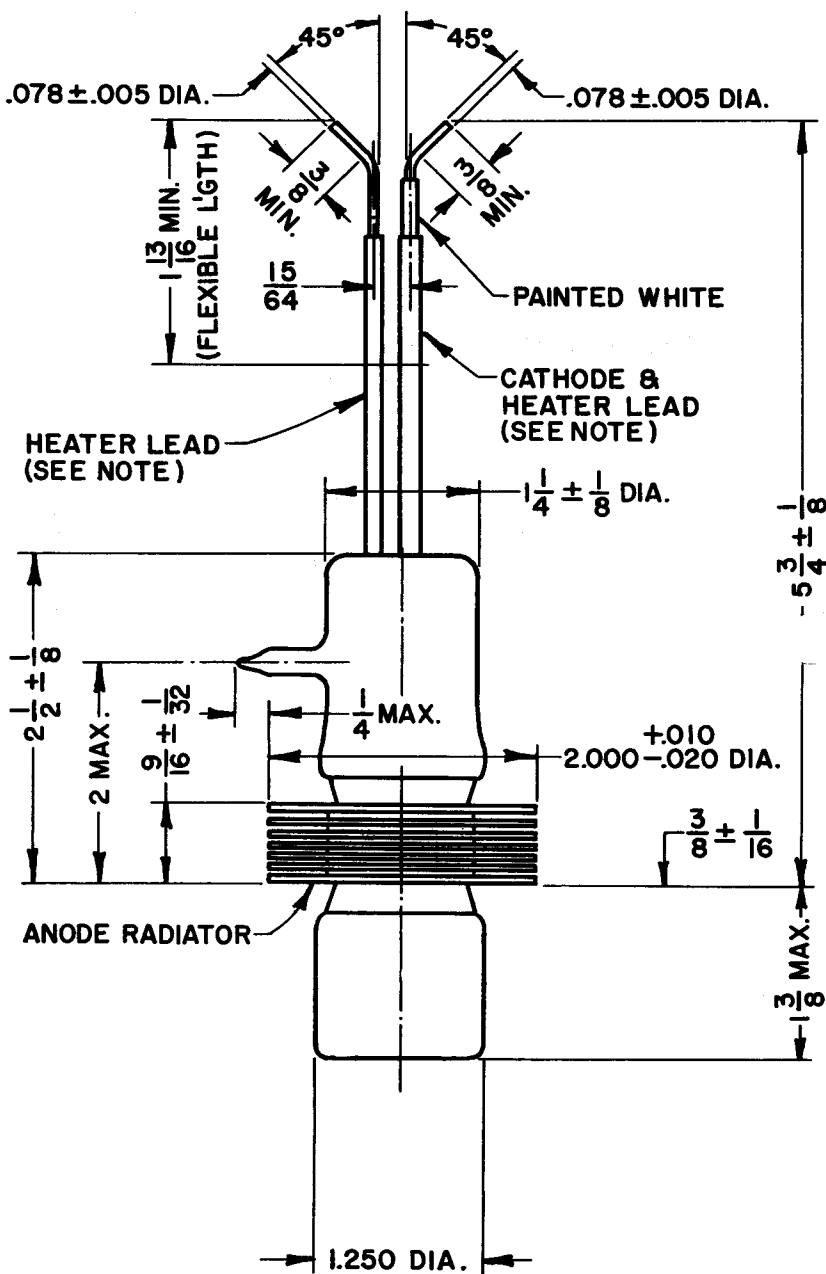
Grid to Anode . . . . . 6.9 uuf  
 Grid to Filament . . . . . 10.0 uuf  
 Anode to Filament . . . . . 2.0 uuf  
 Cathode Warm-up Time . . . . . 3 Min.  
 Peak Cathode Current . . . . . 2.7 Amperes  
 Peak Inverse Voltage . . . . . 8.0 Kilovolts DC  
 Peak Anode Current . . . . . 2.0 Amperes

## TYPICAL OPERATION (PULSE)

DC Anode Voltage . . . . . 4.2 Kilovolts DC  
 DC Grid Voltage . . . . . -700 Volts DC  
 Peak Power Output . . . . . 6.5 Kilowatts  
 Duty . . . . . 0.0005

## MAXIMUM RATINGS

DC Anode Voltage . . . . . 7.5 Kilovolts  
 DC Grid Voltage . . . . . -750 Volts  
 DC Anode Current . . . . . 2.0 Amperes  
 Maximum Duty . . . . . 0.0012  
 Peak Anode Current . . . . . 2.0 Amperes  
 Peak Cathode Current . . . . . 2.7 Amperes  
 Peak Anode Voltage . . . . . 8.0 Kilovolts  
 Peak Power Output . . . . . 6.5 Kilowatts



**NOTE: LEAD INSULATED WITH BRAIDED FIBRE GLASS TUBING.**



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