

# PHANOTRON

## DESCRIPTION

The GL-857-B is a half-wave, mercury-vapor rectifier tube for use in the high voltage field. The low voltage drop characteristic inherent in mercury-

vapor tubes, together with other features of design and construction assure maximum efficiency of operation in many different rectifier applications.

## TECHNICAL INFORMATION

*These data are for reference only. For design information refer to specifications.*

### GENERAL CHARACTERISTICS

Number of electrodes . . . . . 2

#### Electrical

Cathode—Filamentary  
 Filament voltage . . . . . 5.0 volts  
 Filament current, approx. . . . . 30.0 amperes  
 Heating time, typical . . . . . 1 minute  
 Peak voltage drop, typical . . . . . 12 volts

#### Mechanical

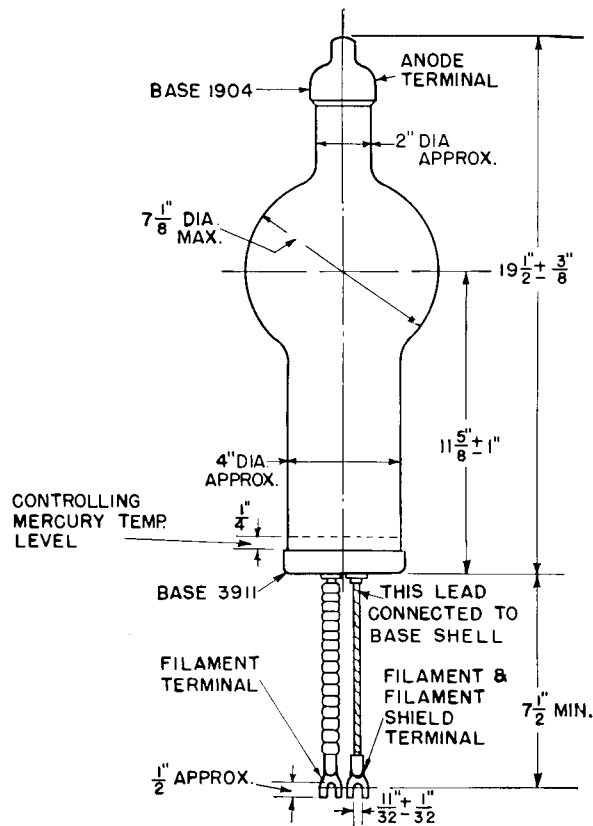
Type of cooling . . . . . convection or forced air  
 Net weight, approx. . . . . 3½ pounds  
 Shipping weight, approx. . . . . 10 pounds  
 Mounting position . . . . . vertical, base down



**TECHNICAL INFORMATION (CONT'D)**

**MAXIMUM RATINGS**

Maximum peak inverse anode voltage	
Type of cooling	Convection . . . . . Forced-air
150 cycles or less	10,000 volts . . . . . 22,000 volts
Corresponding mercury temperature	25-65 centigrade . . . . . 30-40 centigrade
Maximum anode current	
Instantaneous 25 cycles and above	
In-phase operation	20 amperes
Quadrature operation	40 amperes
Average	
In-phase operation	5 amperes
Quadrature operation	10 amperes
Surge, for design only	400 amperes
Duration of surge current	0.2 second
Maximum time of averaging current	30 seconds
Recommended temperature, condensed mercury	35 ± 5 centigrade



OUTLINE  
 GL-857-B PHANOTRON

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