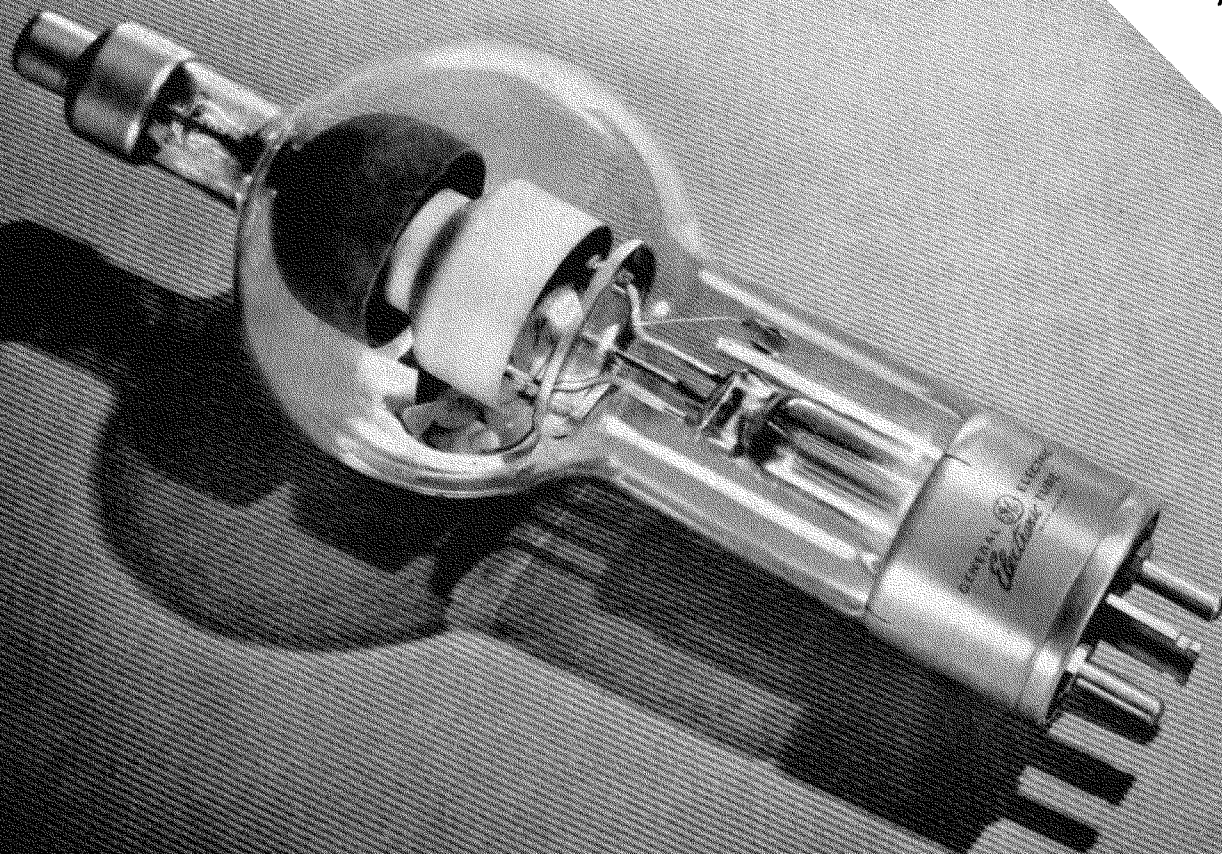




PHANOTRON

DESCRIPTION

The GL-869-B is a half-wave, mercury-vapor rectifier tube for use in broadcast transmitters and other applications where high d-c voltages are required. Economy of operation and high over-all efficiency result from several unique design features incorporated in this tube. The design of cathode allows the further advantage of operation

with either in-phase or quadrature filament excitation. In quadrature operation the filament and anode voltages are approximately ninety degrees out of phase with each other. Such an arrangement, allowing uniform utilization of the cathode, results in greater uniformity of characteristics than is possible with other methods.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of electrodes 2

Electrical

Cathode—Filamentary type

Filament voltage 5.0 volts

Filament current, approx. 18.0 amperes

Heating time, typical 1 minute

Peak voltage drop, typical 15 volts

Mechanical

Type of cooling convection

Net weight, approx. 1½ pounds

Shipping weight, approx. 6 pounds

Mounting position vertical, base down



GENERAL  ELECTRIC

TECHNICAL INFORMATION (CONT'D)

MAXIMUM RATINGS

In-phase filament excitation

Maximum peak inverse anode voltage

Type of cooling	Convection	Forced-air
150 cycles or less	10,000 volts	20,000 volts
Corresponding mercury temperature	30-60 centigrade	30-40 centigrade

Maximum anode current

Instantaneous, 25 to 150 cycles	10 amperes
Average	2.5 amperes

Quadrature filament excitation

Maximum peak inverse anode voltage

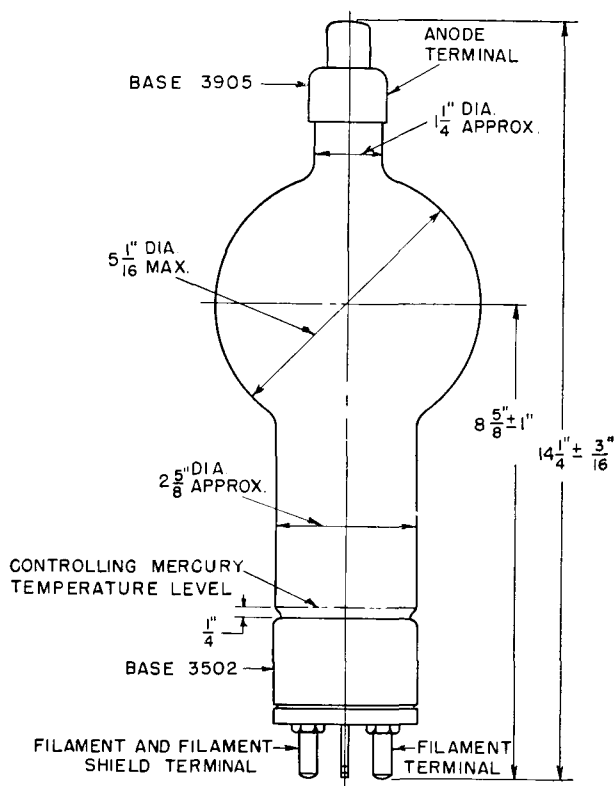
Type of cooling	Forced-air
150 cycles or less	15,000 volts
Corresponding mercury temperature	30-40 centigrade

Maximum anode current

Instantaneous, 25 to 150 cycles	15 amperes
Average	5 amperes

Quadrature or In-phase filament excitation

Surge, for design only	100 amperes
Duration of surge current	0.1 second
Maximum time of averaging current	30 seconds
Recommended temperature, condensed mercury	35 ± 5 centigrade



OUTLINE
GL-869-B PHATRON

K-4909011

9-23-44

Electronics Department
GENERAL ELECTRIC
Schenectady, N. Y.