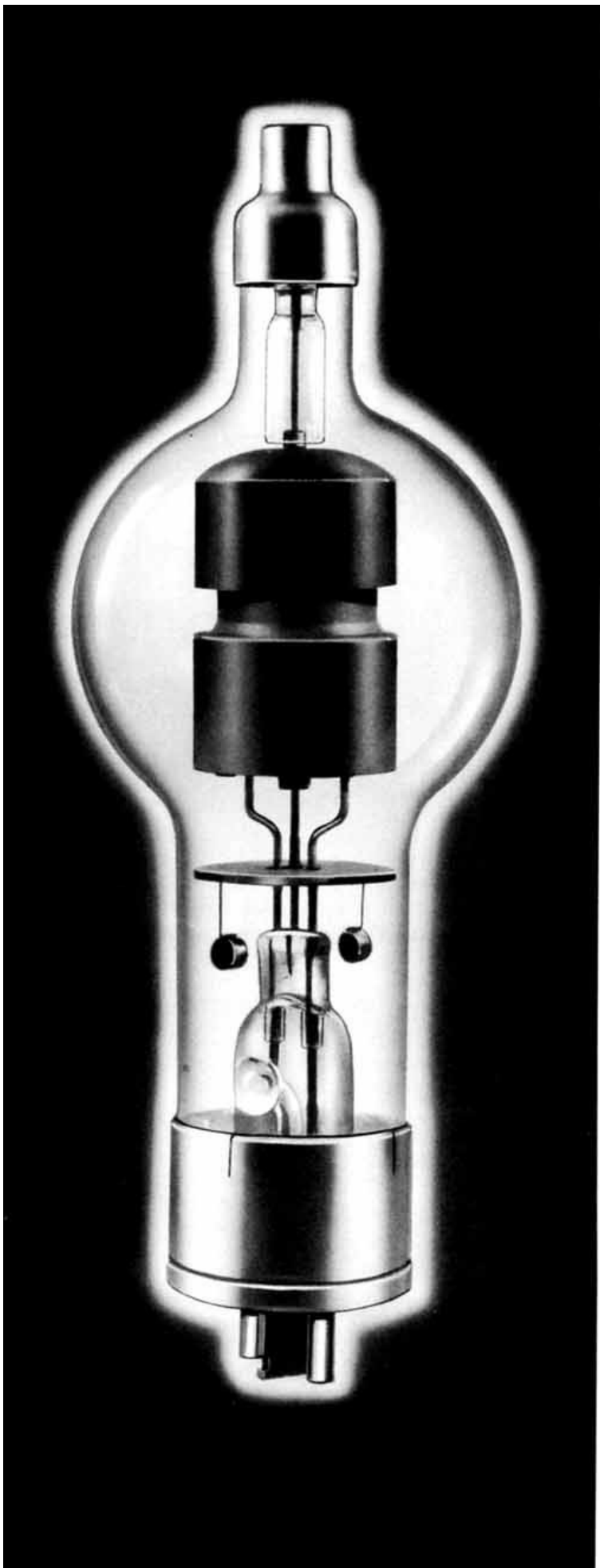


FEDERAL

F-869-B HALF WAVE RECTIFIER



TECHNICAL DATA

No. of Electrodes	2
Filament Voltage	5 volts
Current	20 amperes
Heating Time	60 seconds
Maximum Average Current	
In phase operation	2.5 amperes
Quadrature operation	5.0 amperes
Maximum Peak Current	
In phase operation	10 amperes
Quadrature operation	15 amperes
Maximum Peak Inverse Voltage*	
Ambient Temperature	
30°—45° C	20000 volts
15°—50° C	16000 volts
Overall Dimensions	
Maximum Length	14 $\frac{3}{8}$ inches
Minimum Length	14 $\frac{1}{8}$ inches
Maximum Diameter	5-1/16 inches
Type Base and Cap	Standard
Mounting	Standard or Federal type 1004-A
Recommended operating Ambient Temperature Range	15°—50° C

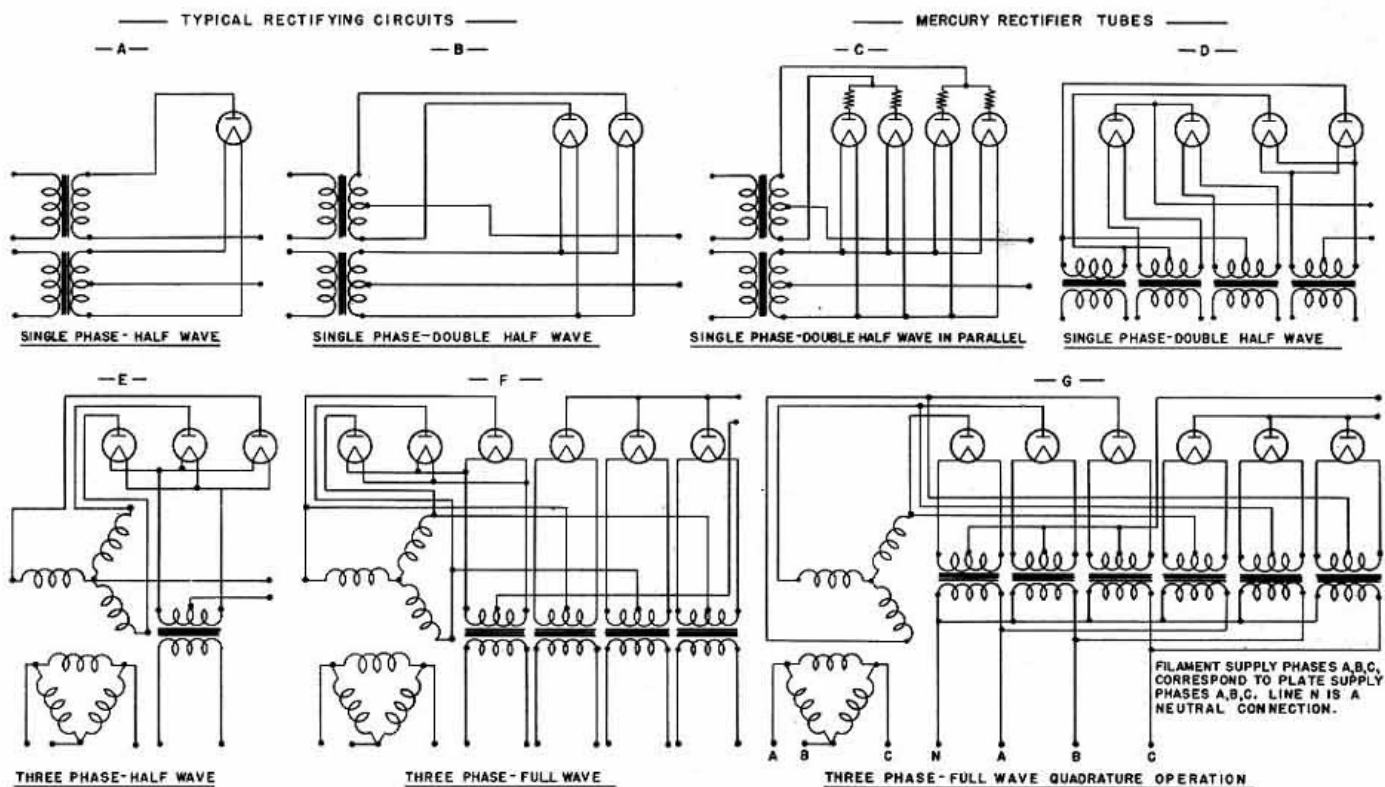
**For Quadrature operation, temperature regulated forced air cooling must be employed.*

The information herein by no means represents exact conditions of operation to be imposed for any particular situation. Since tubes are used under many widely different conditions the manufacturer will gladly furnish information regarding characteristics for design purposes.

Manufactured by
FEDERAL TELEGRAPH CO., INC.

Division of
INTERNATIONAL TELEPHONE & RADIO
MANUFACTURING CORPORATION
200 Mt. Pleasant Avenue, Newark, N. J., U. S. A.

F-869-B HALF WAVE RECTIFIER



Typical rectifying circuits in which Type F-869-B may be employed are illustrated above. The approximate D.C. output current and voltage for each type of rectifying circuit shown, when tubes are operated at maximum permissible space current and inverse voltages, are given in the following table:

Circuit	No. of Tubes	Input Voltage RMS	Approx. D.C. Volts	Output D.C. Amperes	
				In phase Operation	Quadrature Operation
A	1	14000 per tube	6300	2.5	5.0
B	2	7000 per tube	6300	5.0	10.0
C	4	7000 per tube	6300	10.0	20.0
D	4	14000 per 2 tubes	12500	5.0	10.0
E	3	8250 per tube	9500	7.5	15.0
F	6	8250 per tube	19200	7.5	—
G	6	8250 per tube	19200	—	15.0

The above values are for rectifiers working into filters the input inductance of which is sufficient to maintain the output current substantially constant. Pure sine waveform of the power source is assumed. Transformer regulation and voltage drops in tubes and filter are neglected.