

TENTATIVE DATA  
RAYTHEON TYPE 6K-1005  
(Formerly Type QMG-159)

# E. I. A.

## REGISTRATION

### FILE

The Raytheon type 6K-1005 (formerly type QMG-159) is a full wave gas fill rectifier with an ionic heated cathode designed to work on storage batteries with the vibrator supplying the filament power. The tube may also be used as a cold cathode rectifier on ac-dc lines having 100 to 130 volts provided that the filament is heated to start the tube. Typical operating circuits are shown on attached sheet.

BULB: MT-8

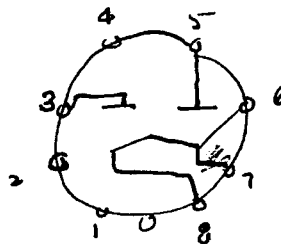
BASE: Small Wafer Octal 8-Pin

#### DIMENSIONS

|                        |        |        |
|------------------------|--------|--------|
| Maximum Overall Length | 2 5/8  | inches |
| Maximum Seated Height  | 2 1/16 | inches |
| Maximum Diameter       | 1 5/16 | inches |

#### BASING

Pin 1 - Shield  
Pin 2 - No Connection  
Pin 3 - Plate - Right  
Pin 4 - No Connection



Pin 5 - Plate - Left  
Pin 6 - Filament - Left  
Pin 7 - No Connection  
Pin 8 - Filament - Right

#### RATINGS \*

##### FULL WAVE RECTIFIER (Condenser Input)

|                                                      | Cond. I†† |     | Cond. II‡ |       |
|------------------------------------------------------|-----------|-----|-----------|-------|
| Filament Voltage (RMS or D-C)**                      | 4.0       | 6.3 | 11.0      | volts |
| Nominal Heater Current                               | 0.08      | 0.1 | 0.125     | amp   |
| Maximum Peak Voltage Per Anode                       | 285       | 225 | 225       | volts |
| Maximum Peak Inverse Voltage                         | 450       | 450 | 450       | volts |
| Average Dynamic Voltage Drop                         | 20        | 20  | 20        | volts |
| Maximum D-C Output Current                           | 70        | 70  | 70        | ma    |
| Minimum D-C Output Current                           | 15        | 0   | 30        | ma    |
| Minimum Starting Peak Voltage                        | 175       | 125 | 100       | volts |
| Maximum Steady State Peak Anode Current<br>Per Anode | 210       | 210 | 210       | ma    |

\* For interpretation of ratings, see RMA Standards for storage battery operation.

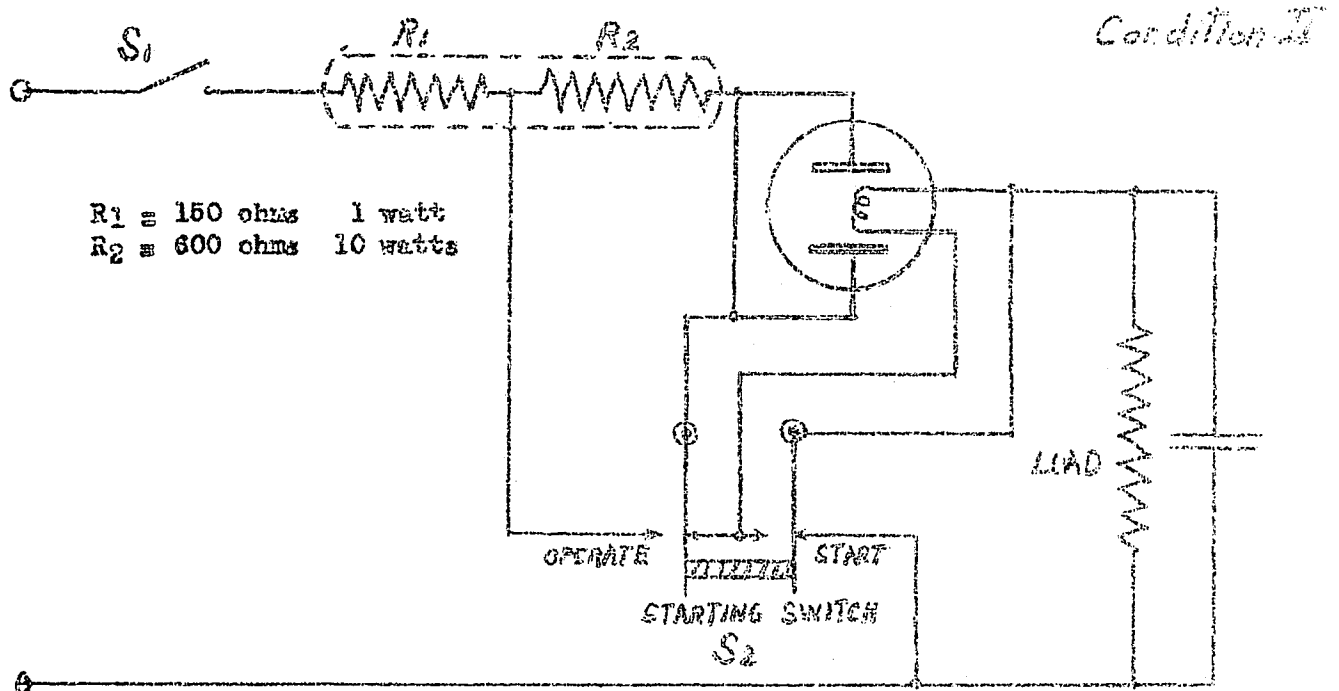
† Cond. I applies when filament is heated during operation.

‡ Cond. II applies when filament is heated only for starting.

\*\* When used in full wave vibrator operation with the filament heated from the transformer, the filament should be poled so that the end next to the corresponding anode should be in phase with the anode voltage when a center tap is used.

from EIA registration # 309 Nov. 2, 1942

CR-1005  
TYPICAL OPERATING CIRCUITS



To start,  $S_2$  is depressed or thrown to the start position long enough to start, and released or thrown back to the run position. For quick starting  $R_1$  and  $R_2$  should be ballast resistors.

