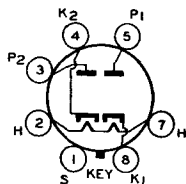


# RCA-6H6

## TWIN DIODE



The 6H6 is a heater-cathode type of All-Metal tube combining two diodes in one shell. Each diode has its own separate cathode and corresponding base pin. This arrangement offers flexibility in the design of circuits employing the 6H6 for detection, for low-voltage low-current rectification, or for automatic volume control. For diode-detector considerations, refer to page 26.

### CHARACTERISTICS

|                                              |                         |              |
|----------------------------------------------|-------------------------|--------------|
| HEATER VOLTAGE (A. C. or D. C.).....         | 6.3                     | Volts        |
| HEATER CURRENT .....                         | 0.3                     | Ampere       |
| PLATE NO. 1 TO PLATE NO. 2 CAPACITANCE*..... | 0.02 max.               | $\mu$ mf     |
| A-C PLATE VOLTAGE PER PLATE (RMS).....       | 100 max.                | Volts        |
| D-C OUTPUT CURRENT.....                      | 4 max.                  | Milliamperes |
| BASE .....                                   | Small Wafer Octal 7-Pin |              |

\* With shell connected to cathode.

### INSTALLATION

The base pins of the 6H6 fit the standard octal socket which may be installed to hold the tube in any position. For heater operation and cathode connection, refer to INSTALLATION for type 6A8.

### APPLICATION

For detection, the diodes may be utilized in a full-wave circuit or in a half-wave circuit. In the latter case, one plate only, or the two plates in parallel, may be employed. The use of the half-wave arrangement will provide approximately twice the rectified voltage as compared with the full-wave arrangement.

For automatic-volume control, the 6H6 may be used in circuits similar to those employed for any of the duplex-diode types of tubes. The only difference is that the 6H6 is more adaptable due to the fact that each diode has its own separate cathode.

Since the diodes by themselves do not provide any amplification, it is usually necessary to provide gain by means of a supplementary tube. Types such as the 6C5, 6F5, 6J7, and 6K7 are very suitable for this purpose. Their use in combination with the 6H6 is similar to that of the amplifier sections of duplex-diode triode or pentode types, such as the 6R7, 6Q7 and 6B8. The amplifier sections of these types have somewhat the same characteristics as the 6C5, 6F5 and 6J7, respectively.

