



TYPE 878

HALF-WAVE HIGH-VACUUM RECTIFIER

ENGINEERING INFORMATION

GENERAL RATINGS

Number of Electrodes	2
Filament Voltage	2.5 volts
Current	5.0 amperes
Type	Tungsten
Operating Conditions:	
Maximum Peak Inverse Voltage.....	20000 volts
Maximum Peak Plate Current	20 ma.
Average Plate Current	5 ma.
Maximum Overall Dimensions:	
Length	7 5/8 inches
Diameter	1 13/16 inches
Bulb	T-14
Cap	Medium Metal Skirted
Base	Medium 4-Pin
Type of Cooling	Air
Net Weight	2 3/4 oz.

INSTALLATION

The base of the UNITED 878 is designed for mounting in a standard socket of the four-pin type. The tube should always be mounted vertically with ample air space provided for ventilation.

The filament of the 878 should be operated on alternating current at the rated value of 2.5 volts.

Operation of the filament at less than the rated voltage may result in a high internal voltage drop with subsequent loss of emission. A filament voltmeter should be connected permanently across the filament circuit at the socket terminals in order that the filament voltage can be maintained at 2.5 volts.

It is important that the filament transformer secondary be insulated to withstand the maximum peak inverse voltage encountered in the installation. **Caution—The filament winding is at high potential.**

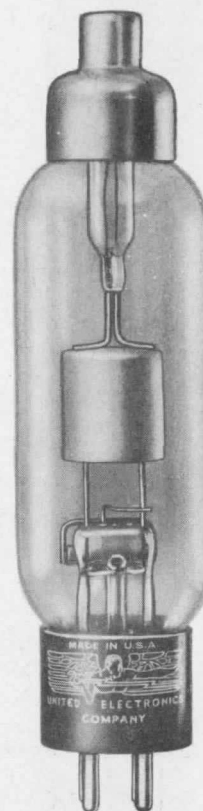
Filter requirements are ordinarily met by the use of a 0.5 to 2.0 uf condenser shunted across the bleeder circuit. The shunt condenser should have a rating sufficient to withstand the instantaneous peak value of the a-c input voltage. If this filtering is inadequate for a definite application, a two-section filter is recommended.

In a voltage doubler circuit, two UNITED 878's may be operated to deliver approximately twice the voltage obtainable from a half-wave rectifier circuit for the same a-c input voltage. However, a separate filament supply winding is required for each tube.

DESIGN AND CHARACTERISTIC FEATURES

The UNITED type 878 is a tube of exceptional physical ruggedness. This design not only takes into account important electrical and thermal considerations, but end use conditions involving vibration and shock such as encountered in industrial electronic equipment.

All ratings given are for continuous service. Higher ratings are permissible for intermittent operation. Additional data will be furnished upon request.



This tube is used in suitable rectifying systems to supply the d-c voltage requirements of cathode-ray tubes, and for similar purposes.

