



NORMAL AND HIGH FREQUENCY RANGE
R-F POWER AMPLIFIER, OSCILLATOR, CLASS B MODULATOR
ENGINEERING INFORMATION

GENERAL RATINGS

Number of Electrodes.....	3
Filament Voltage	7.5 volts
Current	3.25 amperes
Type	Thoriated Tungsten
Average Characteristic Values Calculated at:	
40 ma. Plate Current	
Amplification Factor	11
Plate Resistance	5500 ohms
Mutual Conductance	2000 micromhos
Average Direct Interelectrode Capacities:	
Grid to Plate	2.5 uuf
Grid to Filament	2.0 uuf
Plate to Filament	0.7 uuf
Maximum Overall Dimensions:	
Length	6 7/8 inches
Diameter	2 11/16 inches
Bulb	S-21
Base	Medium 4-Pin Bayonet
Type of Cooling	Air
Net Weight	3 oz.

MAXIMUM RATINGS

Maximum D-C Plate Voltage Modulated	1250	volts
Maximum D-C Plate Voltage Unmodulated	1250	volts
Maximum D-C Plate Current Modulated	100	ma.
Maximum D-C Plate Current Unmodulated	100	ma.
Maximum Plate Dissipation	50	watts
Maximum D-C Grid Current	20	ma.
Maximum R-F Grid Current	5	amp.
Frequency Rating for Operating Conditions with Maximum Rated Power Input and Nominal Output:		
Below	100	megacycles
Above	3	meters

*Maximum Frequency Rating with Reduced Power Input and Output:

Below	350	megacycles
Above	.85	meter

* For operation at the higher frequencies, the plate voltage, plate current, plate dissipation, and d-c grid current should not exceed 50% of the Maximum Ratings. The R-F grid current should never exceed the maximum rated value.

INSTALLATION

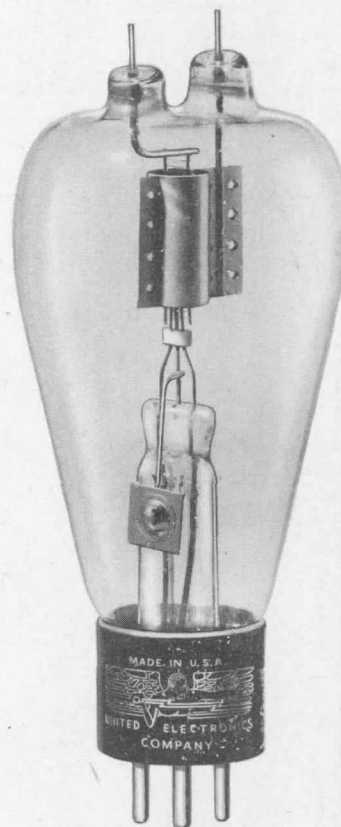
The base of the UNITED 834 is designed for mounting in a standard four prong socket but only the filament terminals of this socket are connected since the grid and plate leads come out at the bulb top. The tube may be mounted either in the base-down or base-up position but the axis of the filament should always be vertical. Ample air space should be provided for ventilation.

The filament of the 834 should be operated at the rated value of 7.5 volts. Operation at other than rated value may result in loss of filament emission and short life.

The plate dissipation of the 834 should never exceed the values given under Maximum Ratings and Typical Operation Conditions

Excellent high frequency characteristics are obtained from the manner in which the electrodes of the 834 are assembled. The plate, grid and filament are supported from separate points and their relative spacing maintained without the use of insulating separators other than the NONEX glass bulb. Short heavy leads are brought out from the plate and grid. This construction provides the low inductance, resistance and capacitance values so essential for ultra high frequency operation.

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



United type 834 is used in medium power ultra-high frequency applications. Interchanges directly with types 304-B, BW-11.

