



F-6400/6400A

POWER TRIODES

DESCRIPTION:

The F-6400 and F-6400A are triodes designed for use as industrial oscillators. The construction is exceptionally rugged with a thoriated tungsten filamentary cathode of bifilar helix construction.

Both types are water cooled and 6 kilowatts of power may be dissipated during Continuous Commercial Service. The F-6400 is provided with an integral water jacket attached to the tube.

ELECTRICAL

Filament Voltage	13	Volts
Filament Current	36	Amperes
Amplification Factor		
Direct Interelectrode Capacitance		
Grid-Plate	13.4	µuf
Grid-Filament	15.0	µuf
Plate-Filament	1.8	µuf

MECHANICAL

Mounting Position	Vertical, Anode Up or Down		
Maximum Glass and Seal Temperature	180°C		
Plate Dissipation	6.0	4.0	2.0 Kilowatts
Water Flow	3.5	2.0	.5 gpm
Water Jacket Pressure Drop	2.0	1.0	.1 psi
Water Pressure			80 psi maximum
Net Weight (Approximately)			
F-6400	1-1/2 Pounds		
F-6400A	1-1/4 Pounds		

MAXIMUM RATINGS AND TYPICAL CONDITIONSRF Power Amplifier and Oscillator - Class C

(Key-down conditions per tube without amplitude modulation).

Maximum Ratings, Absolute Values

	<u>2 mc to to 30 mc</u>	<u>Below 2 mc</u>	
DC Plate Voltage**	6.0	8.0	Max. KV
DC Grid Voltage	-1,500	-1,500	Max. Volts
DC Plate Current	2.0	2.0	Max. Amps
DC Grid Current	.200	.200	Max. Amps
Plate Input	12.0	16.0	Max. KW
Plate Dissipation	6.0	6.0	Max. KW

Typical Operation

DC Plate Voltage	5.5	7.5	KV
DC Grid Voltage	-600	-800	Volts
Peak RF Grid Voltage	1,400	1,600	Volts
DC Plate Current	1.7	1.9	Amperes
DC Grid Current (Approximately) .	.19	1.6	Amperes
Driving Power (Approximately) . .	270	250	Watts
Power Output (Approximately) . . .	5.9	9.0	KW
RF Load Resistance	1,360	1,700	Ohms

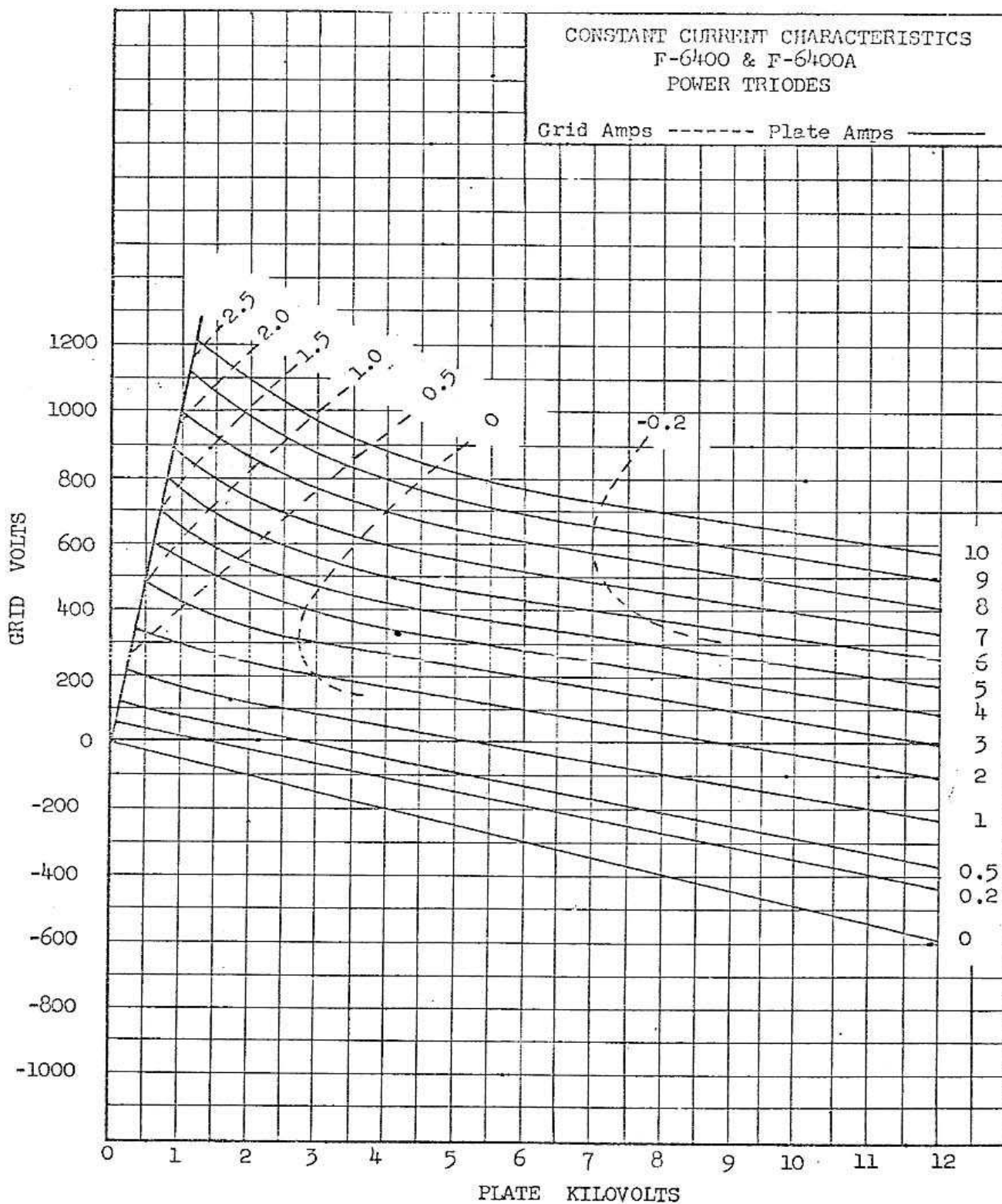
**Rectified, unfiltered, three-phase half wave plate supply is acceptable.

SERIES REGULATOR SERVICEMaximum Ratings, Absolute Values

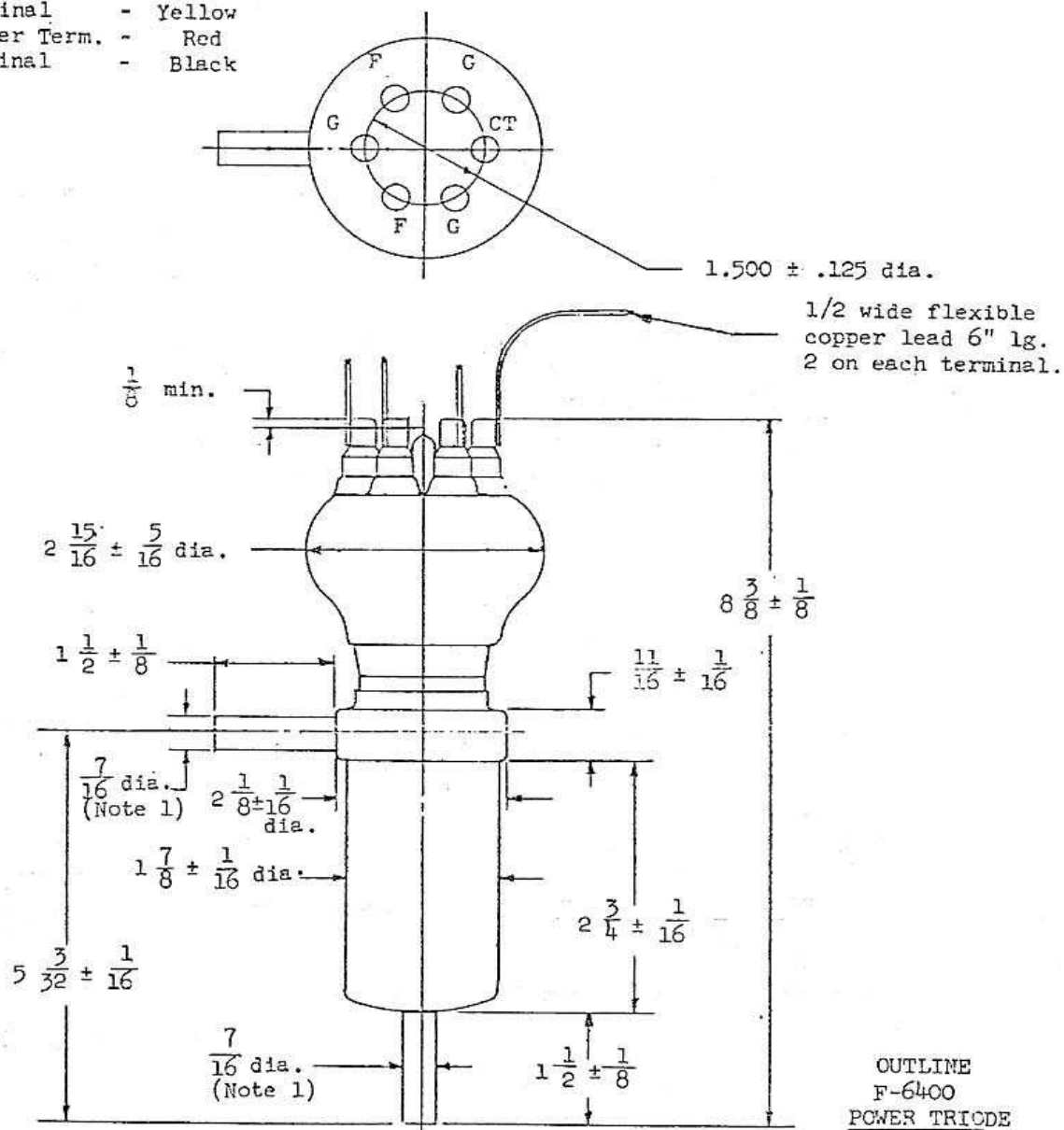
DC Plate Voltage	17.5	KV
DC Grid Voltage	-1,500	Volts
DC Plate Current	5.0	Amperes
Grid Dissipation	200	Watts
Plate Dissipation (Refer to plate dissipation ratings on page 1)		

Additional information for specific applications can be obtained from the:

ITT ELECTRON TECHNOLOGY DIVISION
Applications Department
P.O. Box 100
Easton, Pennsylvania 18042



Fil. Terminal - Yellow
 Fil. Center Term. - Red
 Grid Terminal - Black



Note 1: Brass compression fittings are useful in making water connections.

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OUTLINE

F-6400A POWER TRIODEACCESSORIES

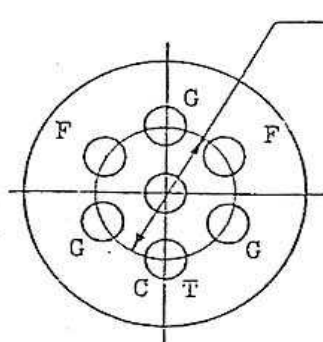
Water Jacket

RT-53955-12 (Ordering #)

RT-54550-1 (Outline Dwg)

O-Ring

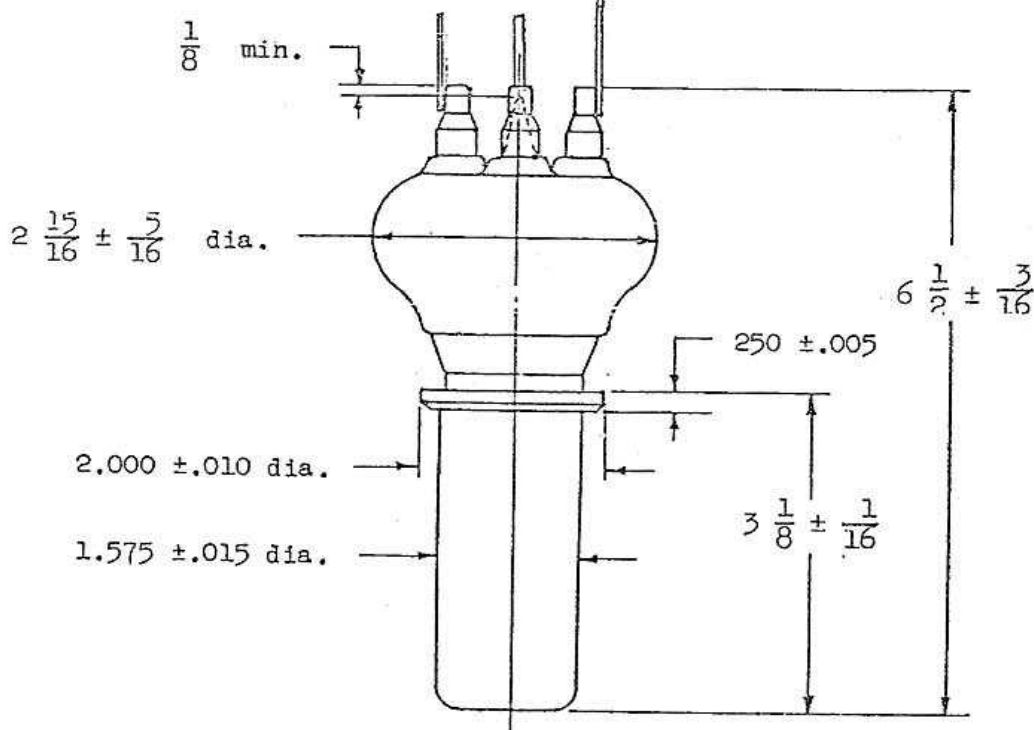
RT-53836-1 - Type "AA"



1.500 ± .125 dia.

Fil. Terminal - Yellow
 Fil. Center Terminal - Red
 Grid Terminal - Black

1/2 wide Flexible
 Copper Lead
 6" long, 2 on each
 terminal



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