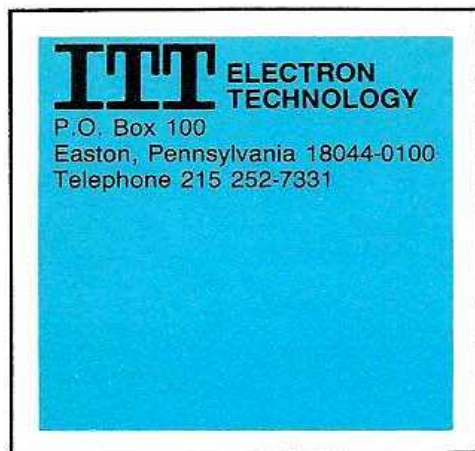




F-7532

POWER TRIODE

DESCRIPTION

The F-7532 is a low mu triode designed for use as an amplifier or modulator in broadcast and communications service and as an RF amplifier in single side-band applications. Its high mutual conductance and low internal plate resistance make it ideal in applications where low distortion is required. The anode is capable of dissipating 10 kilowatts during Continuous Commercial Service and cooling is accomplished by vaporizing water. The cathode is a thoriated tungsten filament of mesh construction and may be operated on DC or single phase AC.

ELECTRICAL

Filament Voltage	9.5	Volts
Filament Current	53	Amperes
Filament Starting current		
Full rated filament voltage may be safely applied to the cold filament		
Filament Heating Time	1	Minute Min.
Amplification Factor	5.5	
Interelectrode Capacitance		
Grid-Plate	26	μpf
Grid-Filament	30	μpf
Plate-Filament	4.5	μpf

MECHANICAL

Mounting Position	Vertical, Anode Down
Maximum Glass & Seal Temperature ¹ . .	180°C
Weight (Approximate)	5 Pounds

¹Auxiliary air flow of approximately 50 cfm may be required to maintain uniform glass and seal temperatures to 180°C maximum. "Tempilaq", a temperature sensitive lacquer is convenient for this measurement.

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONSAudio-Frequency Power Amplifier and Modulator - Class AB₁Maximum Ratings, Absolute Values

DC Plate Voltage	6500	Volts Max.
Maximum Signal DC Plate Current* . . .	3.0	Amperes
Maximum Signal Plate Input	18	Kilowatts
Plate Dissipation	10	Kilowatts
Grid Dissipation	75	Watts

*Averaged over any audio-frequency cycle of sine wave form.

Typical Operation

(Unless otherwise specified, values are for two tubes)

DC Plate Voltage	5000	6000	Volts
DC Grid Voltage**	-1000	-1200	Volts
Peak A-F Grid-to-Grid Voltage	1900	2300	Volts
Zero Signal DC Plate Current	.3	.3	Amperes
Maximum Signal DC Plate Current	3.85	3.85	Amperes
Effective Load Resistance Plate-to-Plate	2170	2840	Ohms
Maximum Signal Driving Power	0	0	Watts
Maximum Signal Power Output	9.75	12.75	Kilowatts

**Effective grid circuit resistance not to exceed 200,000 ohms.

Radio-Frequency Linear Power Amplifier - Class AB₁

(Single side-band)

Maximum Ratings, Absolute Values

	<u>CCS</u>	
DC Plate Voltage	6500	Volts
DC Plate Current	3.0	Amperes
Plate Dissipation	10	Kilowatts
Grid Dissipation	75	Watts
Frequency	30	Megacycles

Typical Operation

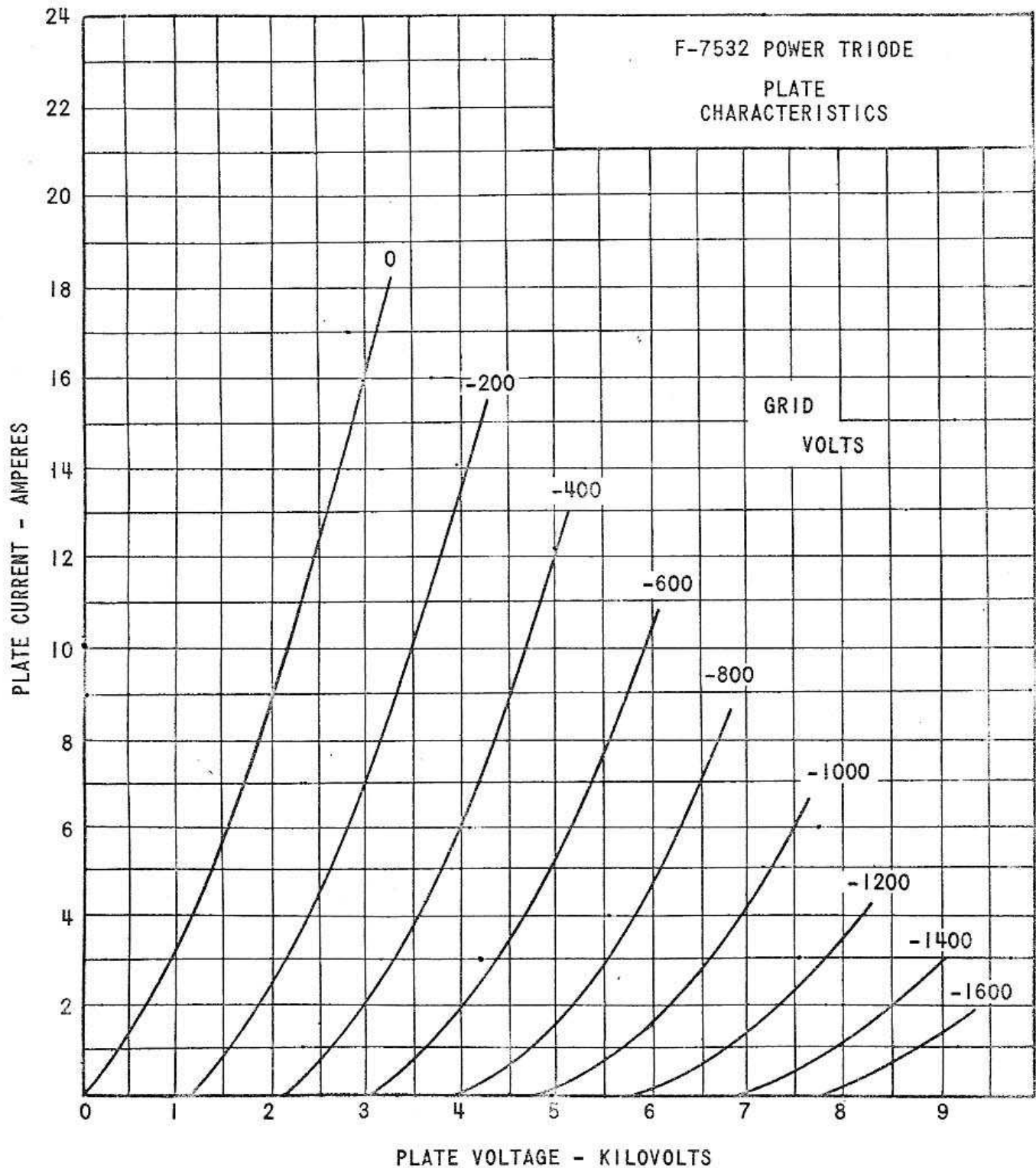
DC Plate Voltage	6000	Volts
DC Grid Voltage†	-1200	Volts
Zero Signal DC Plate Current	.300	Amperes
Single Tone RF (Peak) Grid Voltage . .	1200	Volts
Single Tone DC Plate Current	1.87	Amperes
Single Tone Driving Power	0	Watts
Single Tone Plate Power Input	11.2	Kilowatts
Single Tone Plate Power Output	6.6	Kilowatts

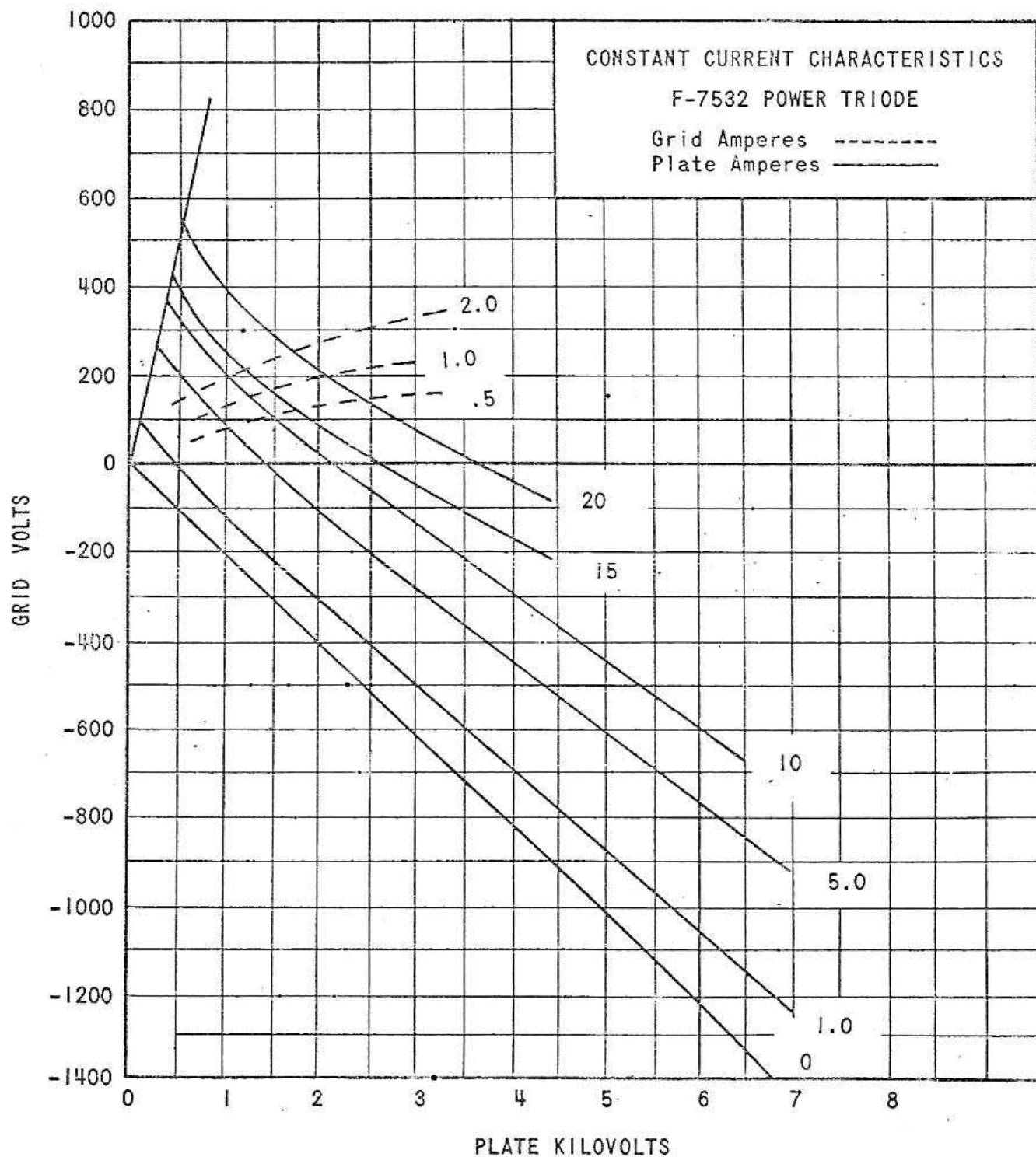
†Adjust to stated zero-signal DC plate current.

Additional information for specific applications can be obtained from:

ITT ELECTRON TECHNOLOGY DIVISION
Applications Department
P.O. Box 100
Easton, Pennsylvania 18044-0100

ELECTRON TECHNOLOGY DIVISION **ITT**
BOX 100 EASTON, PA. 18044-0100

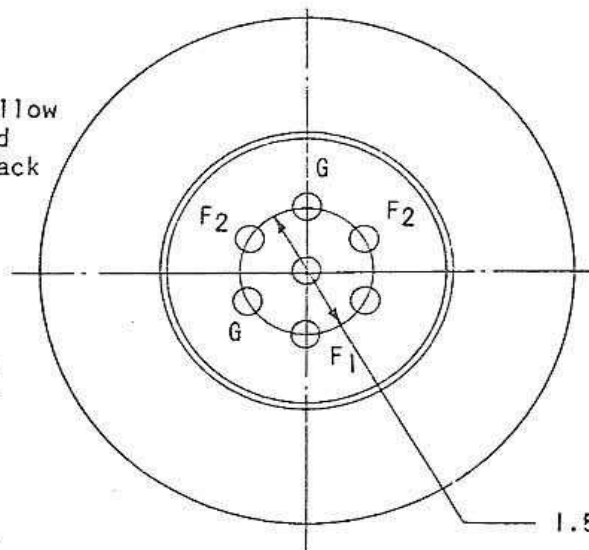




Fil. Terminal #1 - Yellow
 Fil. Terminal #2 - Red
 Grid Terminal - Black

CAUTION:

Two terminals are provided for one side of the cathode (color coded red) and one terminal is provided for the other side (color coded yellow). Use of all three connections is required.

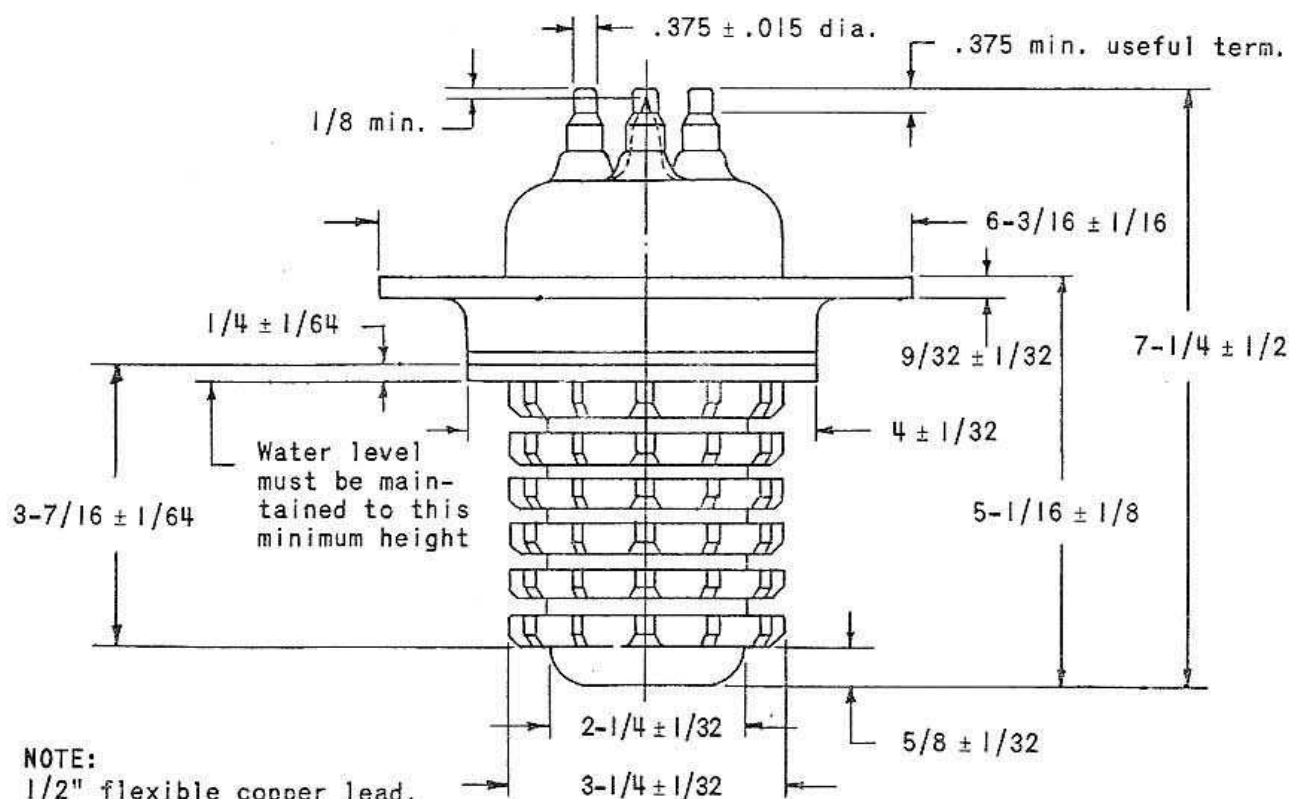


ACCESSORIES

Terminal Connector
RT-54410-2

Type 1 - { 1 req'd }
Type 2 - { 2 req'd }

0-Ring
RT-54502-1



NOTE:

1/2" flexible copper lead,
6" long, available on each
terminal upon request.

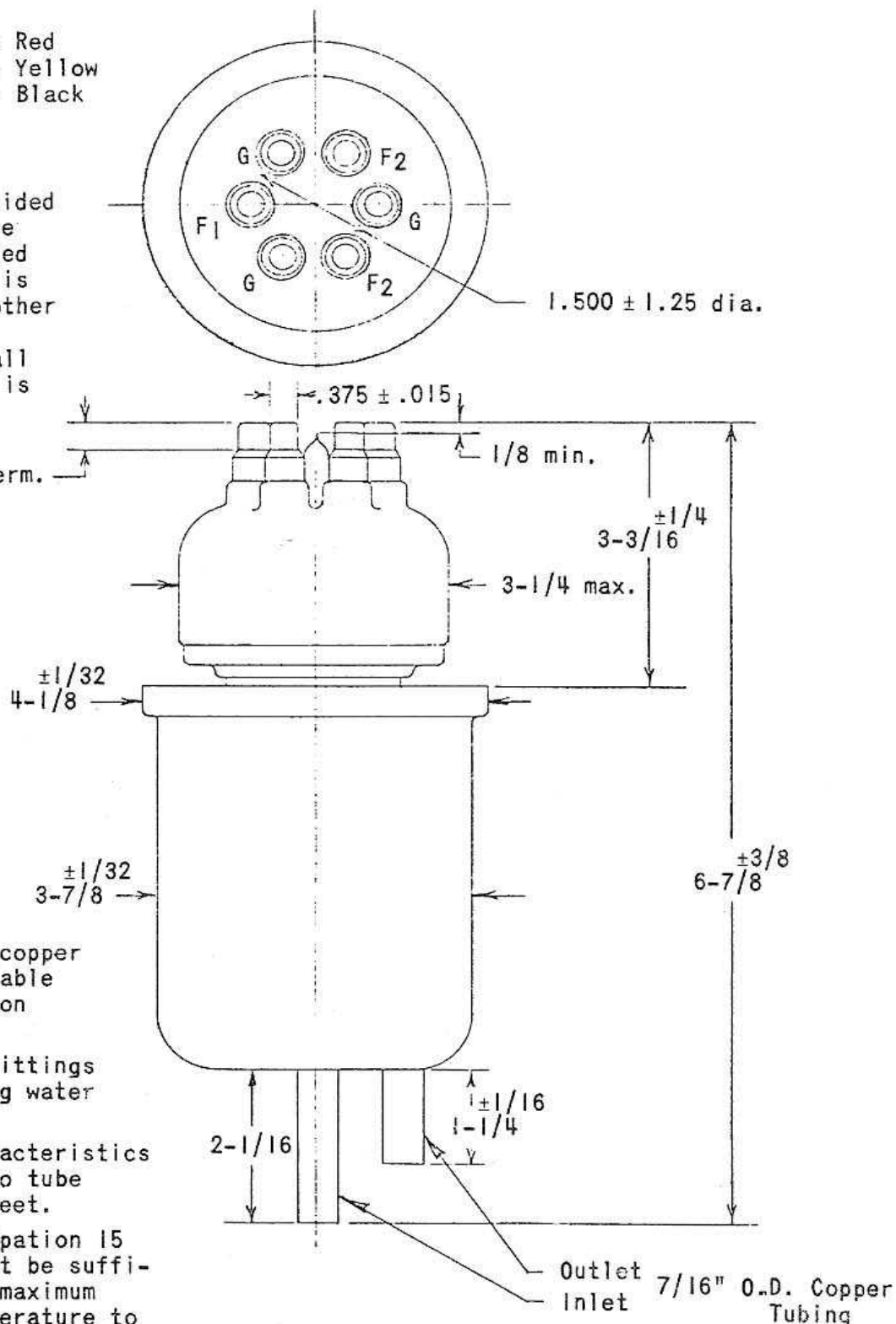
OUTLINE F-7532

ELECTRON TECHNOLOGY DIVISION **ITT**
BOX 100 EASTON, PA. 18044-0100

Fil. Terminal 1 - Red
Fil. Terminals 2 - Yellow
Grid Terminals - Black

CAUTION:

Two leads are provided for one side of the cathode (color coded red) and one lead is provided for the other side (color coded yellow). Use of all three connections is required.



NOTES:

- (1) 1/2" wide flexible copper lead 6" long, available on each terminal upon request.
- (2) Brass compression fittings are useful in making water connections.
- (3) For electrical characteristics and ratings refer to tube Type F-7532 data sheet.
- (4) Maximum plate dissipation 15 kw. Water flow must be sufficient to limit the maximum outgoing water temperature to 80°C.

Net Weight, approximately 6 lbs.