

FEDERAL POWER TRIODE

Type F-6366

3 Kilowatts Plate Dissipation



GENERAL DATA

DESCRIPTION:

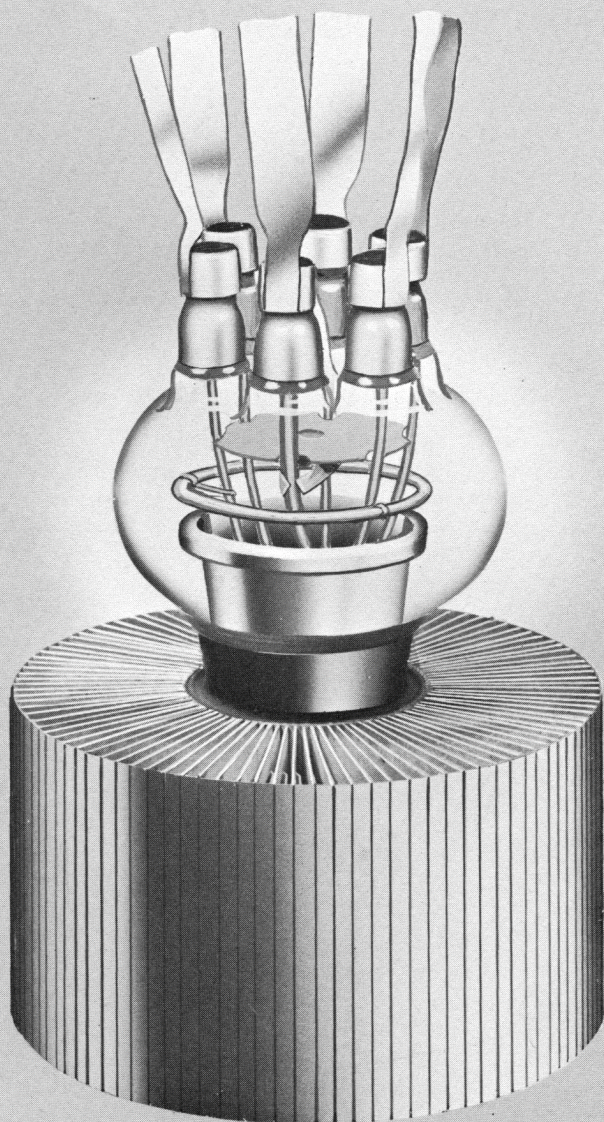
Federal's Type F-6366 is a three-electrode tube designed for use as an industrial oscillator. The relatively wide spacing between the elements, and the lack of internal insulators make this type tube especially suitable for industrial applications. The anode is air-cooled, capable of dissipating 3 kilowatts. The cathode is a thoriated tungsten filament. Maximum ratings apply up to 30 megacycles. Operation up to 50 megacycles is permissible at reduced ratings.

Electrical:

► Filament Voltage	11 Volts
► Filament Current	29 Amperes
► Amplification Factor, Ec = — 200 V, Ib = 0.2A	25
► Interelectrode Capacitances	
Grid-Plate	13 $\mu\mu\text{f}$
Grid-Filament	14.5 $\mu\mu\text{f}$
Plate-Filament	1.7 $\mu\mu\text{f}$

Mechanical:

► Mounting Position —			
Vertical, Anode Down			
► Type of Cooling — Forced Air			
Maximum Incoming			
Air Temperature			45° C
► Required Air Flow on Anode			
Plate Dissipation			
(Kilowatts)	3	2.4	1.8
Air Flow — Cubic			
Feet Per Min.	190	125	75
Pressure — Inches			
Water	1.21	0.58	0.26
Maximum Glass			
Temperature			150° C
► Net Weight,			
Approximate			5 1/4 Pounds



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Maximum Ratings vs. Operating Frequency

Frequency	30	50 Megacycles
Percentage of Maximum Rated Plate Voltage and Plate Input		
Class C — Telegraphy	100	75 Per Cent

Maximum Ratings and Typical Operating Conditions

RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR — CLASS C TELEGRAPHY

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

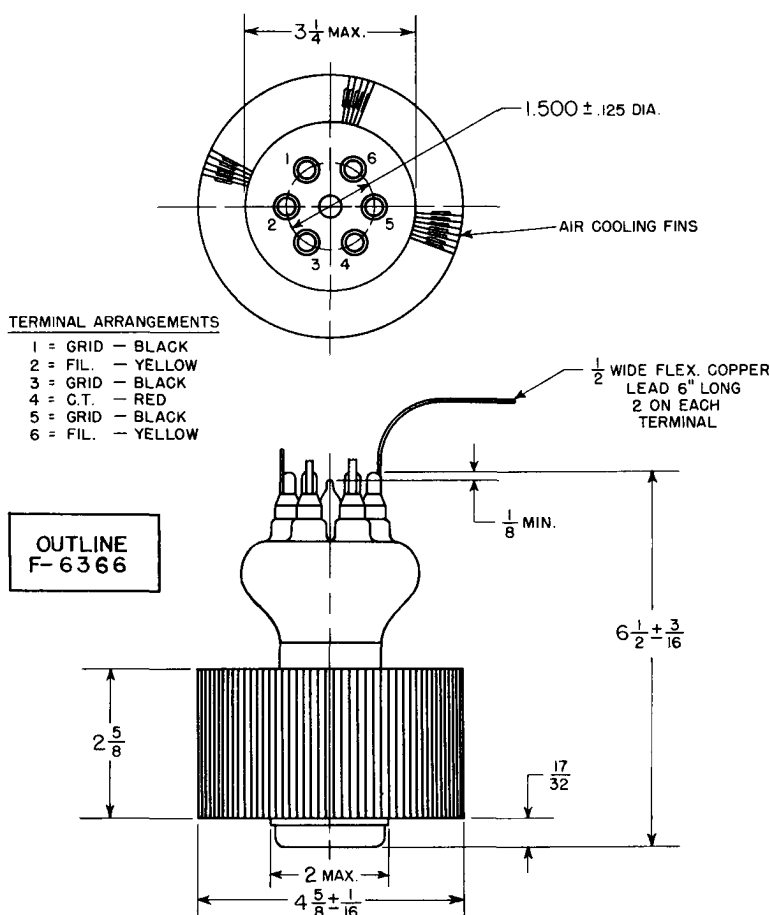
Maximum Ratings, Absolute Values

DC Plate Voltage	5,500 Volts
DC Grid Voltage	— 1,500 Volts
DC Plate Current	1.3 Amperes
DC Grid Current	0.15 Amperes
Plate Input	7 Kilowatts
Plate Dissipation	3 Kilowatts

Typical Operation

DC Plate Voltage	4,500	5,000 Volts
DC Grid Voltage	— 500	— 600 Volts
Peak R-F Grid Voltage	1,100	1,300 Volts
DC Plate Current	1.0	1.2 Amperes
DC Grid Current, Approximate	0.12	0.13 Amperes
Driving Power, Approximate	120	160 Watts
Power Output, Approximate	3	4 Kilowatts

†Modulation essentially negative may be used if the positive peak of the envelope does not exceed 115 per cent of the carrier conditions.

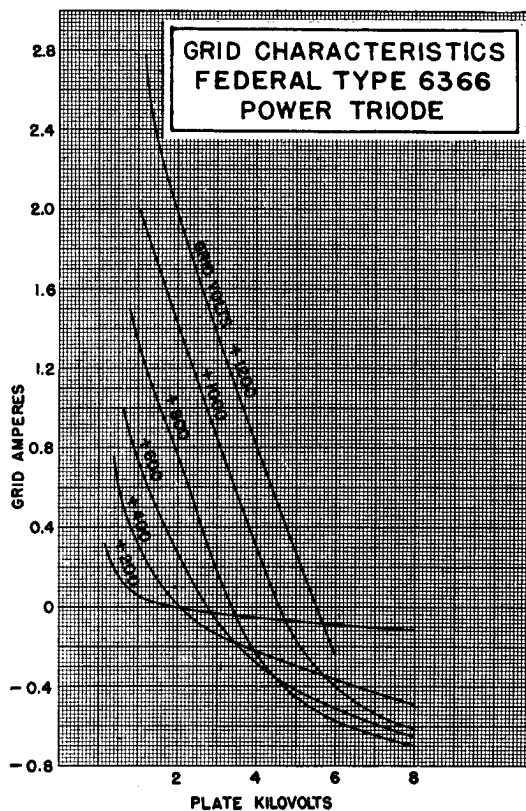
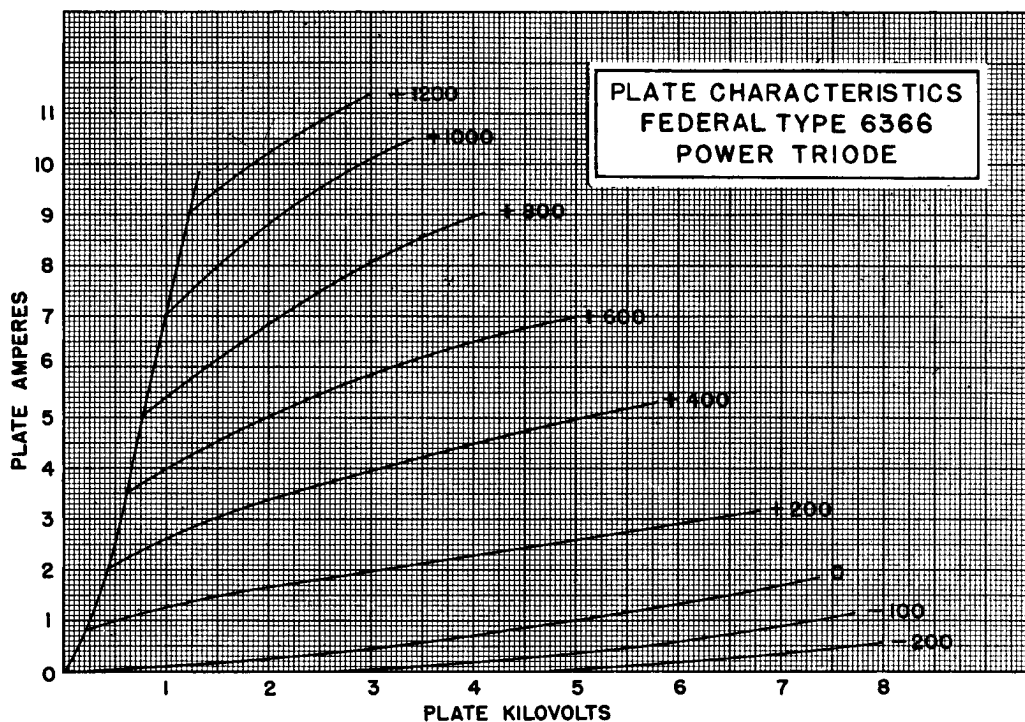


High efficiency radiator allows
reduced blower cost in new
equipment design.

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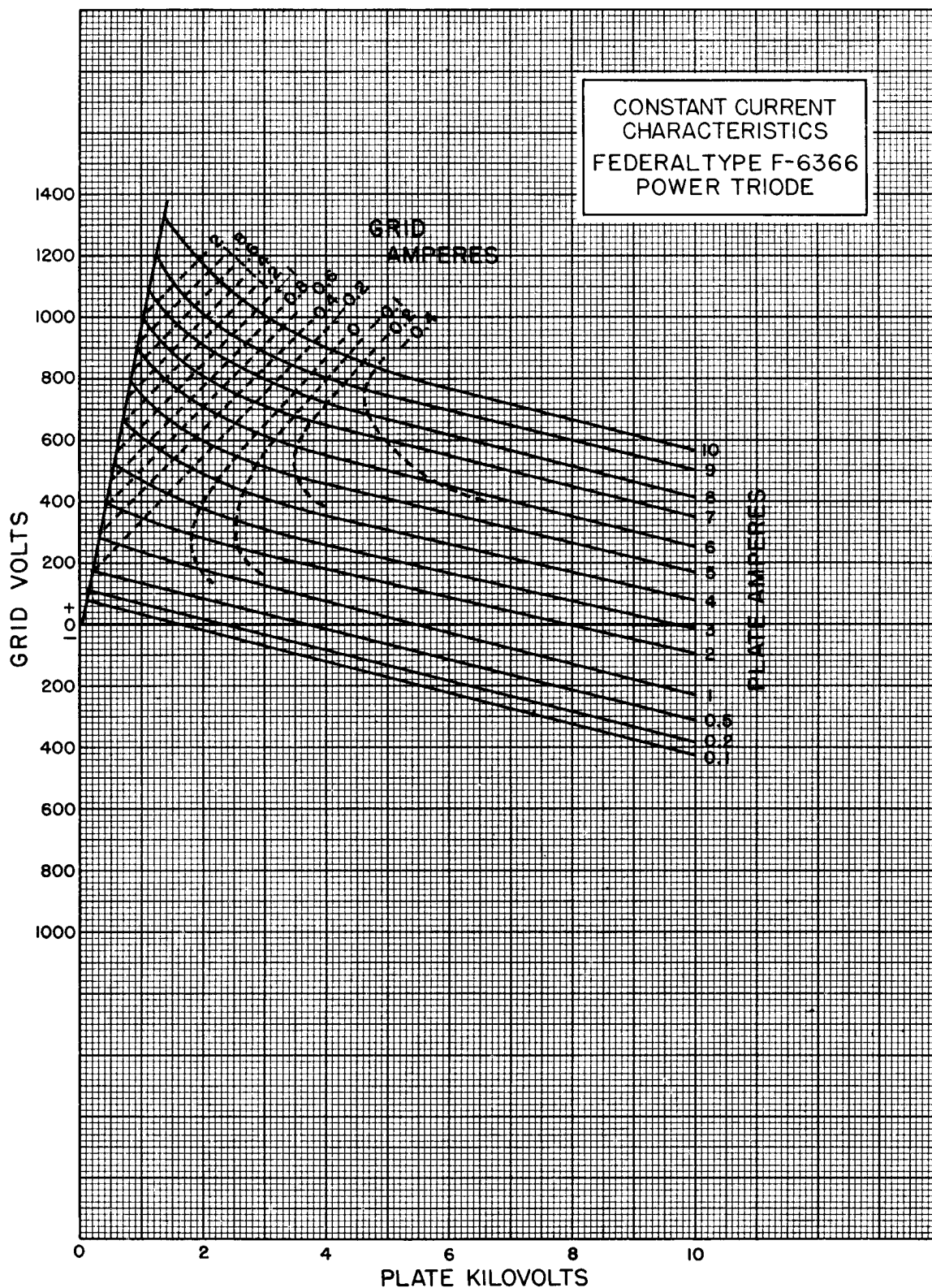
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Grid and Filament leads attached
for convenience of equipment
designers.



Federal Telephone and Radio Company

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