



ELECTRON TUBE DEPARTMENT ■ COMPONENTS DIVISION
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, CLIFTON, NEW JERSEY

F-8208 *
POWER
DIODE

DESCRIPTION

The F-8208 is a high vacuum diode designed for rectifier service or in special circuits wherever the limited emission characteristics of the pure tungsten cathode is desirable. The anode is cooled with circulating water and is capable of dissipating 20 kilowatts during Continuous Commercial Service. The high thermal inertia of the heavy wall external anode protects against tube damage during momentary overload conditions. The cathode is a pure tungsten filament of rugged bifilar helix construction.

ELECTRICAL

Filament Voltage	22	volts
Filament Current	60	amperes
Filament Starting Current, max.	120	amperes
Filament Cold Resistance	.031	ohms
Inter-Electrode Capacitance	13	μf

MECHANICAL

Mounting Position	Vertical, Anode down
Type of Cooling	Circulating water
Min. Water Flow on Anode	4 gpm
Max. Outgoing Water Temperature	70 °C
Max. Glass and Seal Temperature ++	180 °C
Net Weight, approx.	4.5 lbs.

++ Air flow up to 35 cfm may be required to hold the temperature of the glass and seals below 180°C. A temperature sensitive lacquer manufactured by the Tempil Corporation, 132 West 22nd St., New York 11, New York, is convenient for this measurement.

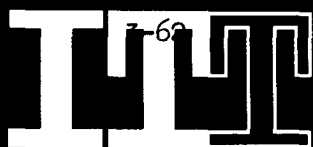
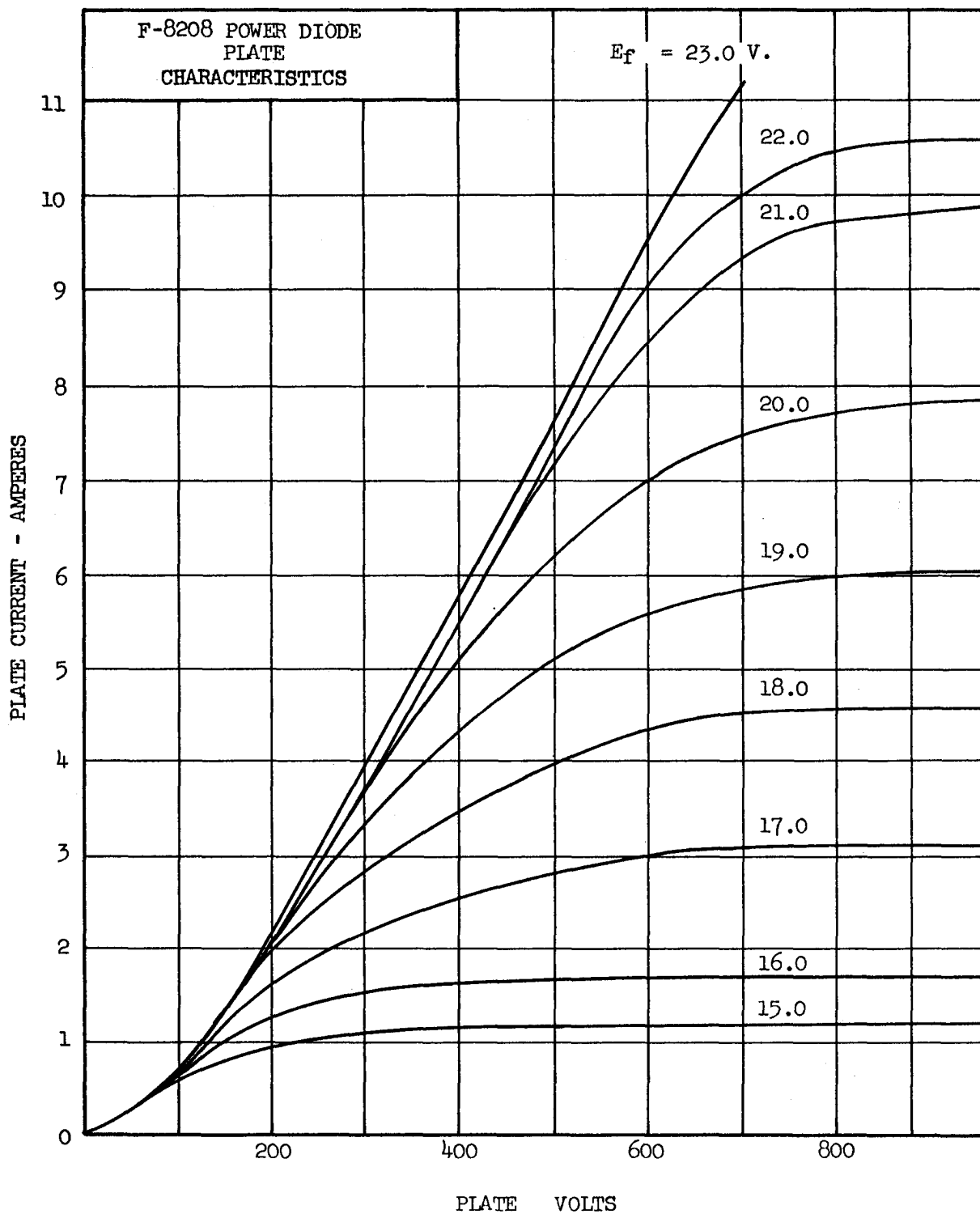
F-8208
POWER
DIODE

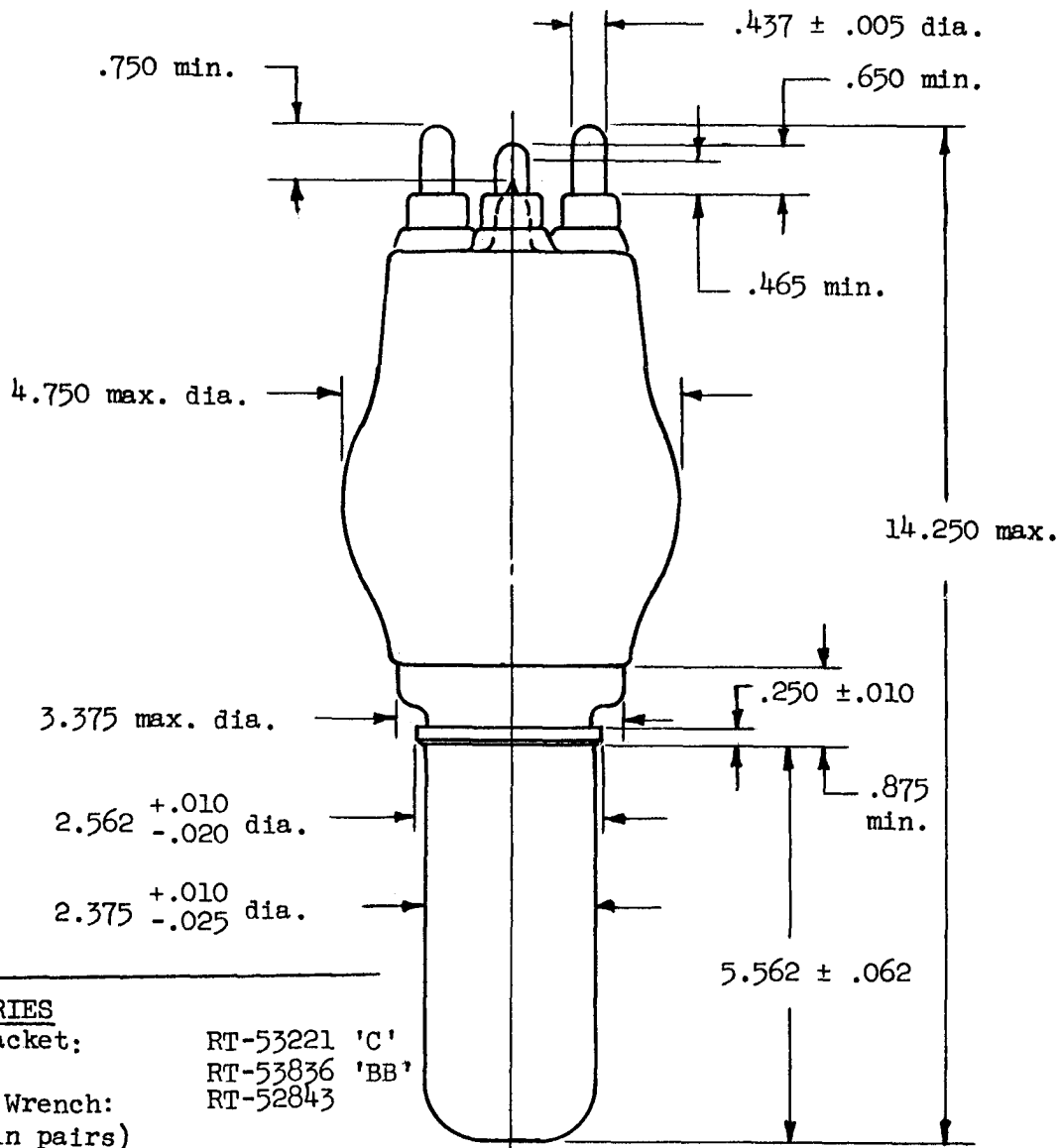
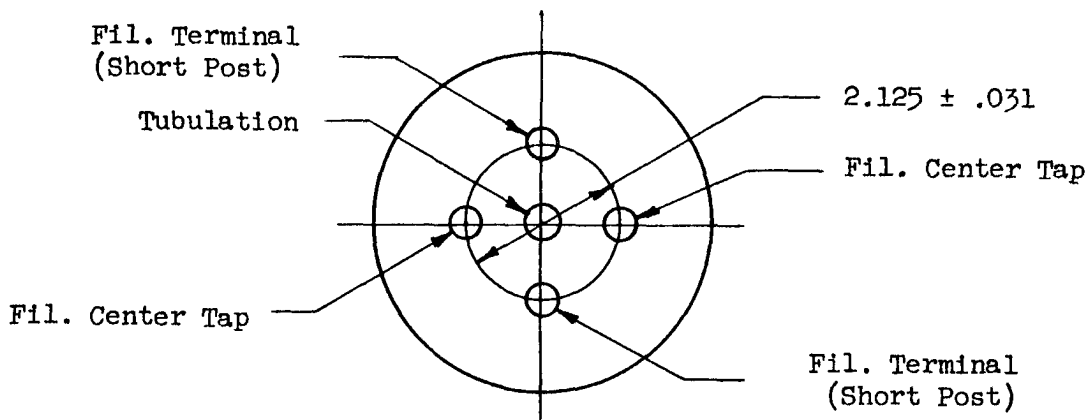
<u>MAXIMUM RATINGS</u>	<u>Surge Limiting Diode Operation</u>	<u>Rectifier</u>	
Peak Inverse Voltage	45	45	kilovolts
Peak Plate Current	10	10	amperes
Average Plate Current	-	3	amperes
Average Plate Dissipation	20	20	kilowatts
Peak Forward Voltage	50	-	kilovolts
Peak Plate Dissipation **	40	40	kilowatts

** Shall not exceed 5 seconds in duration.

Additional information for specific applications can be obtained from:

ITT Components Division
Electron Tube Applications Section
P.O. Box 412
Clifton, New Jersey





ACCESSORIES

Water Jacket: RT-53221 'C'
 O-Ring: RT-53836 'BB'
 Spanner Wrench: RT-52843
 (used in pairs)
 Terminal Connector: RT-53978
 (2 required)

OUTLINE
 F-8208 POWER DIODE