from JEDEC release #3156A, Feb. 26, 1962

engineering TUBE DATA

ITT Components Division

F-7656 ⇦
High Vacuum
Power Diode

DESCRIPTION

The F-7656 is a high vacuum diode designed for rectifier service or in special applications in shunting or charging circuits wherever high peak inverse voltages, extreme environmental conditions or high operating frequencies and transients are present. The exceptionally rugged construction, free of internal insulators, spring tensioning devices and fragile elements, make this type adaptable to a wide range of uses. The anode is forced air cooled and is capable of dissipating 3.0 kilowatts. The exceptionally high thermal inertia of the heavy wall anode protects against tube damage during momentary overload conditions. The cathode is a thoriated tungsten bifilar helix.

ELECTRICAL

Filament Voltage	11	volts
Filament Current	28	amperes
Full rated filament voltage may be safely applied to the cold filament		
Inter-electrode Capacitance	8.5	μμf

Maximum Ratings:	Shunt	Charging	Rectifier	
Maximum Peak Inverse Voltage	40	40	40	kilovolts
Maximum Peak Plate Current *	100	4.0 rms	7.5	amperes
Maximum Average Plate Current	--	--	2.5	amperes

MECHANICAL

Mounting Position				Vertical, anode up or down	
Type of Cooling				Forced air	
Anode Air Flow Required					
Plate Dissipation	3.0	2.4	1.8	1.0	kilowatts
Air Flow	190	125	75	50	cfm
Pressure	1.21	.58	.26	.2	inches of water
Maximum Incoming Air Temperature				45	°C
Maximum Glass & Seal Temperature **				180	°C
Net Weight, approximate				6-1/4	pounds

* Maximum peak plate current of 100 amperes is rated under conditions of filament excitation voltage of 11.9 volts.

**A temperature sensitive lacquer manufactured by the Tempil Corporation, 132 West 22nd Street, New York 11, New York, is convenient for this measurement.

⇦ This data sheet supersedes data of 11-60 in its entirety

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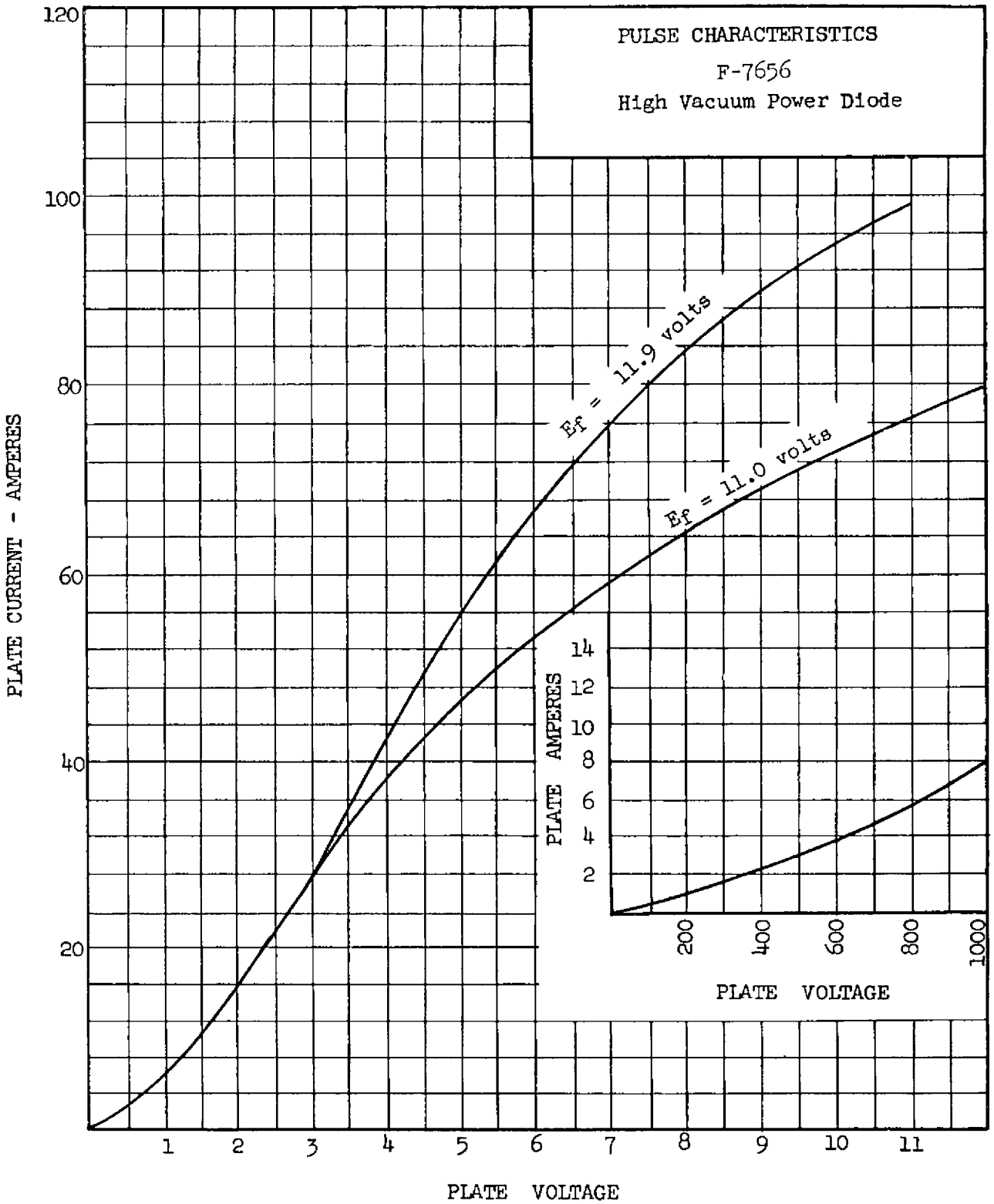
ITT ELECTRON TUBE DEPARTMENT
COMPONENTS DIVISION
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION
P. O. BOX 412, CLIFTON, NEW JERSEY

Additional information for specific applications can be obtained from:

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


PULSE CHARACTERISTICS
F-7656
High Vacuum Power Diode
PLATE CURRENT - AMPERES
120
100
80
60
40
20
Ef = 11.9 volts
Ef = 11.0 volts
1
2
3
4
5
6
7
8
9
10
11
PLATE VOLTAGE
PLATE AMPERES
14
12
10
8
6
4
2
200
400
600
800
1000
PLATE VOLTAGE

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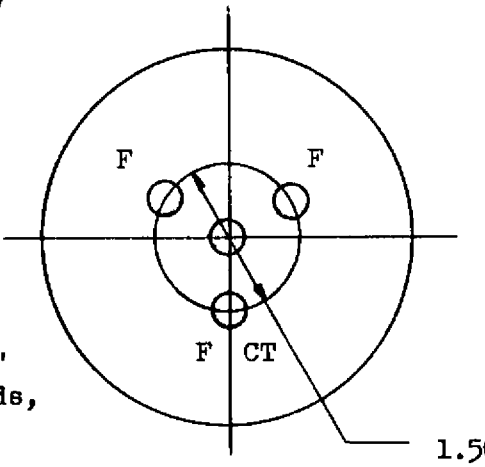
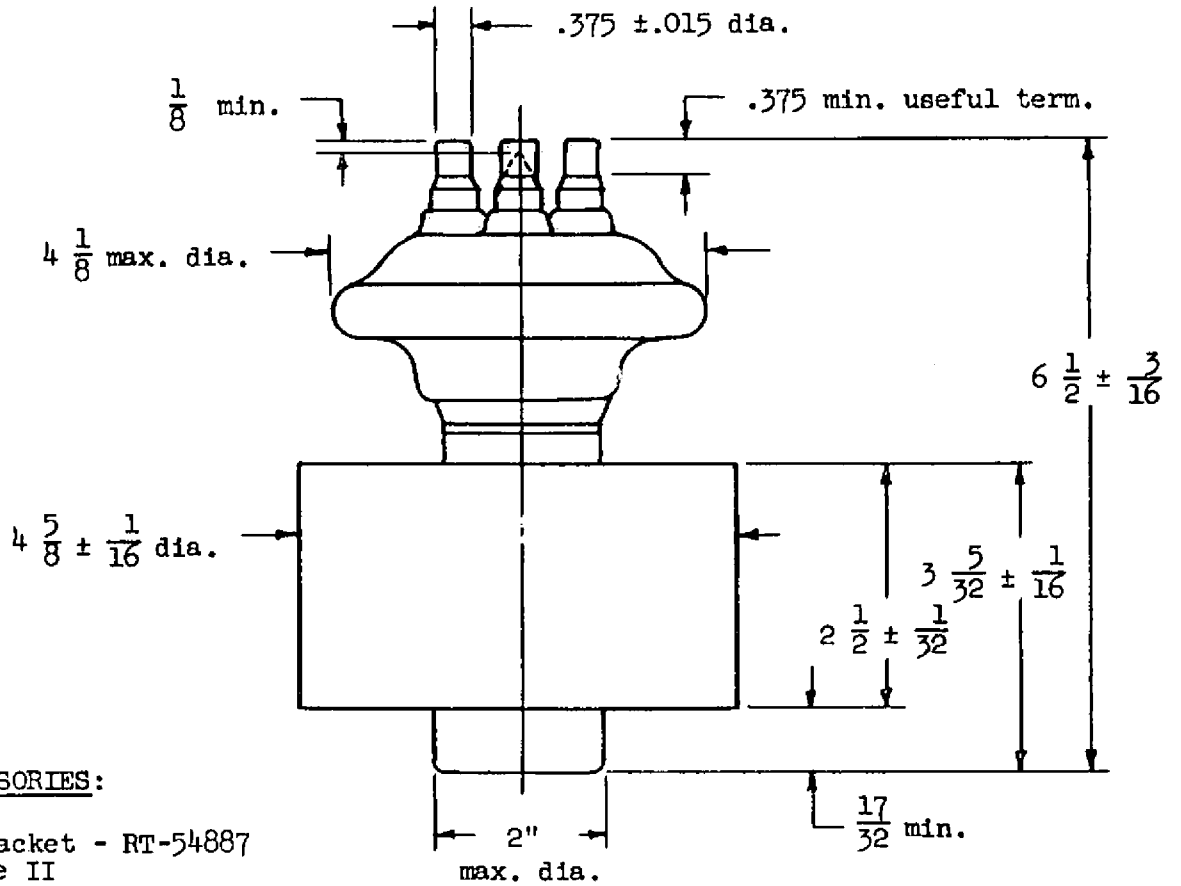
Terminal Color Code

Fil. Term. - Yellow
Fil. Cent. Tap - Red



This tube type is available on request with 1/2" wide flexible copper leads, 6" long.



ACCESSORIES:

Air Jacket - RT-54887
Size II

OUTLINE

F-7656
High Vacuum Power Diode