

NUCLEAR CORPORATION OF AMERICA
CENTRAL ELECTRONIC MANUFACTURERS DIVISION
Denville, New Jersey

High Vacuum Diode
Type XD-49R & XD-49W

DESCRIPTION

The XD-49 is available as a forced air cooled XD-49R or water cooled diode (XD-49W) for use in rectifier and clipper services and features a special thoriated tungsten filament.

SPECIFICATIONS

PHYSICAL	<u>XD-49W</u>	<u>XD-49R</u>
Length	9 7/8 max.	7 3/8 max.
Diameter	4	4 21/32 max.
Weight	1 3/4 approx.	5 1/2 pounds approx.
Mounting Position	Vertical	Vertical
Mounting Socket	--	CAS-A or CAS-B Series
Type of Cooling	Water	Forced Air
Required Air Flow on Anode (Air Cooled Tube)		
Anode Dissipation (kw)	Air Flow (cfm)	Pressure (in. of water)
1.0	50	0.20
1.8	75	0.26
2.4	125	0.58
3.0	190	1.21
Maximum Incoming Air Temperature		45°C
Maximum Glass Seal Temperature		180°C
Required Water Flow (Water Cooled Tube)		3 gpm for 5 kw dissipation
Required Water Flow (Water Cooled Tube)		70°C

ELECTRICAL

Filament	Thoriated Tungsten
Filament Voltage	15 Volts
Filament Current	36 Amperes
Filament Starting Surge Current	80 Amperes
Filament Cold Resistance	.042 Ohms

ELECTRICAL (RECTIFIER)	<u>XD-49W</u>	<u>XD-49R</u>
Filament Voltage	15 volts	15 volts
Filament Current	36 amperes	36 amperes
Peak Inverse Voltage (max.)	25 kilovolts	25 kilovolts
Average Anode Current	7 amperes	3 amperes

WESTERN ELECTRIC COMPANY OF AMERICA CENTRAL ELECTRONIC & MANUFACTURING DIVISION DETROIT, MICHIGAN

High Vacuum Diode
Type KD-100 & KD-100A

DESCRIPTION

The KD-100 is available in a leaded air cooled 10-15 or water cooled 10-15 (10-15) for use in vacuum and rugged electronic and power applications. Standard electronic components.

TECHNICAL DATA

Model	Power (Watt)	Current (Amp)	Temperature (°C)	Notes
KD-100	100	1.0	100	Standard electronic components
KD-100A	100	1.0	100	Standard electronic components
KD-100B	100	1.0	100	Standard electronic components
KD-100C	100	1.0	100	Standard electronic components
KD-100D	100	1.0	100	Standard electronic components
KD-100E	100	1.0	100	Standard electronic components
KD-100F	100	1.0	100	Standard electronic components
KD-100G	100	1.0	100	Standard electronic components
KD-100H	100	1.0	100	Standard electronic components
KD-100I	100	1.0	100	Standard electronic components
KD-100J	100	1.0	100	Standard electronic components
KD-100K	100	1.0	100	Standard electronic components
KD-100L	100	1.0	100	Standard electronic components
KD-100M	100	1.0	100	Standard electronic components
KD-100N	100	1.0	100	Standard electronic components
KD-100O	100	1.0	100	Standard electronic components
KD-100P	100	1.0	100	Standard electronic components
KD-100Q	100	1.0	100	Standard electronic components
KD-100R	100	1.0	100	Standard electronic components
KD-100S	100	1.0	100	Standard electronic components
KD-100T	100	1.0	100	Standard electronic components
KD-100U	100	1.0	100	Standard electronic components
KD-100V	100	1.0	100	Standard electronic components
KD-100W	100	1.0	100	Standard electronic components
KD-100X	100	1.0	100	Standard electronic components
KD-100Y	100	1.0	100	Standard electronic components
KD-100Z	100	1.0	100	Standard electronic components

PHYSICAL DATA

Model	Power (Watt)	Current (Amp)	Temperature (°C)	Notes
KD-100	100	1.0	100	Standard electronic components
KD-100A	100	1.0	100	Standard electronic components
KD-100B	100	1.0	100	Standard electronic components
KD-100C	100	1.0	100	Standard electronic components
KD-100D	100	1.0	100	Standard electronic components
KD-100E	100	1.0	100	Standard electronic components
KD-100F	100	1.0	100	Standard electronic components
KD-100G	100	1.0	100	Standard electronic components
KD-100H	100	1.0	100	Standard electronic components
KD-100I	100	1.0	100	Standard electronic components
KD-100J	100	1.0	100	Standard electronic components
KD-100K	100	1.0	100	Standard electronic components
KD-100L	100	1.0	100	Standard electronic components
KD-100M	100	1.0	100	Standard electronic components
KD-100N	100	1.0	100	Standard electronic components
KD-100O	100	1.0	100	Standard electronic components
KD-100P	100	1.0	100	Standard electronic components
KD-100Q	100	1.0	100	Standard electronic components
KD-100R	100	1.0	100	Standard electronic components
KD-100S	100	1.0	100	Standard electronic components
KD-100T	100	1.0	100	Standard electronic components
KD-100U	100	1.0	100	Standard electronic components
KD-100V	100	1.0	100	Standard electronic components
KD-100W	100	1.0	100	Standard electronic components
KD-100X	100	1.0	100	Standard electronic components
KD-100Y	100	1.0	100	Standard electronic components
KD-100Z	100	1.0	100	Standard electronic components

ELECTRICAL (RECTIFIER)

XD-49W

XD-49R'

Peak Anode Current (max.) 25 amperes
Maximum Dissipation 5 kilowatts

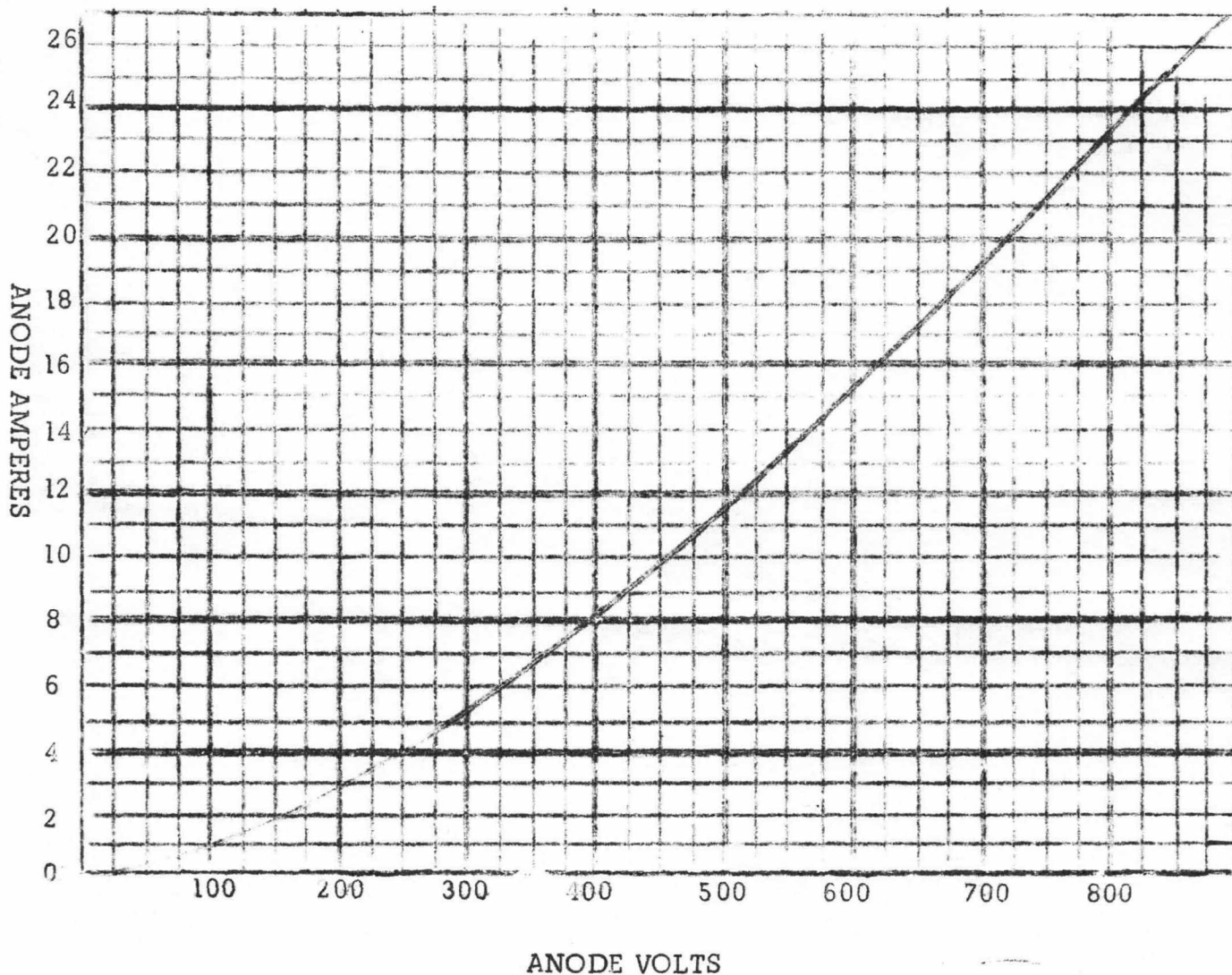
10 amperes
3 kilowatts

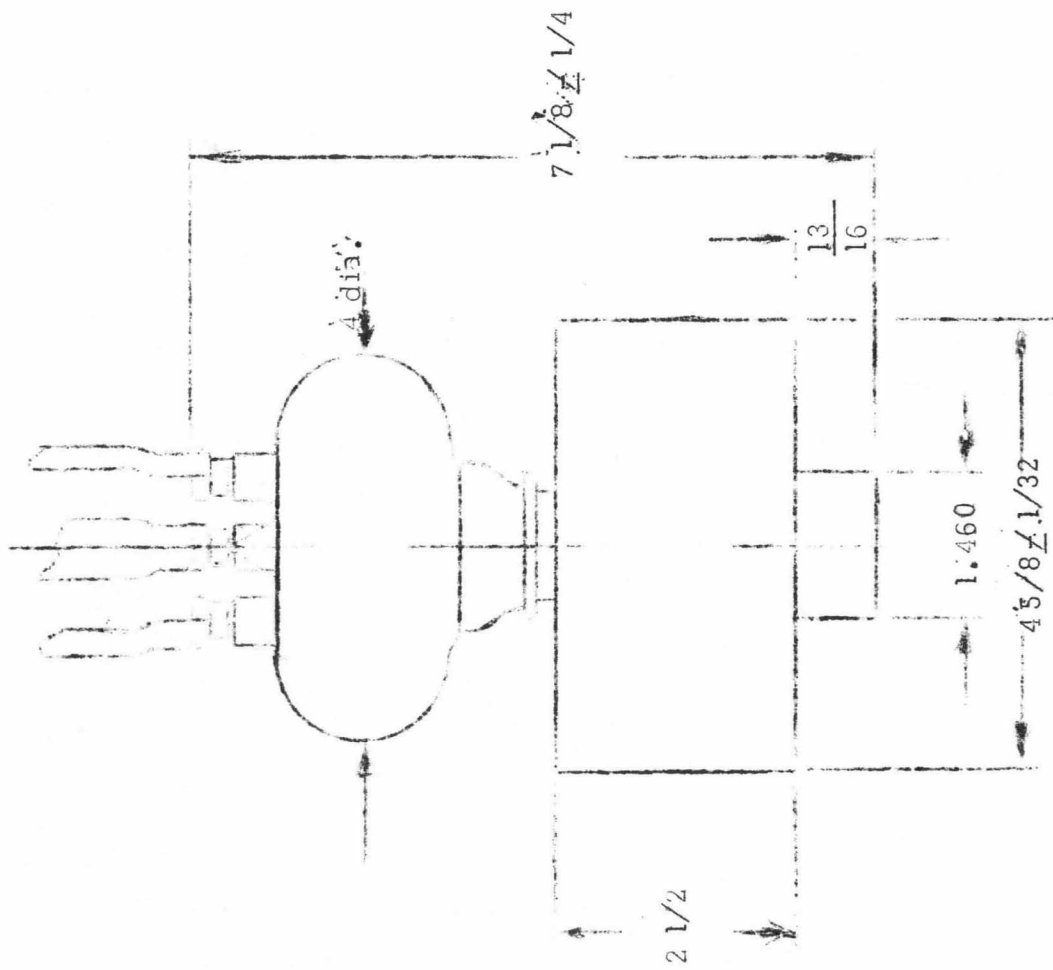
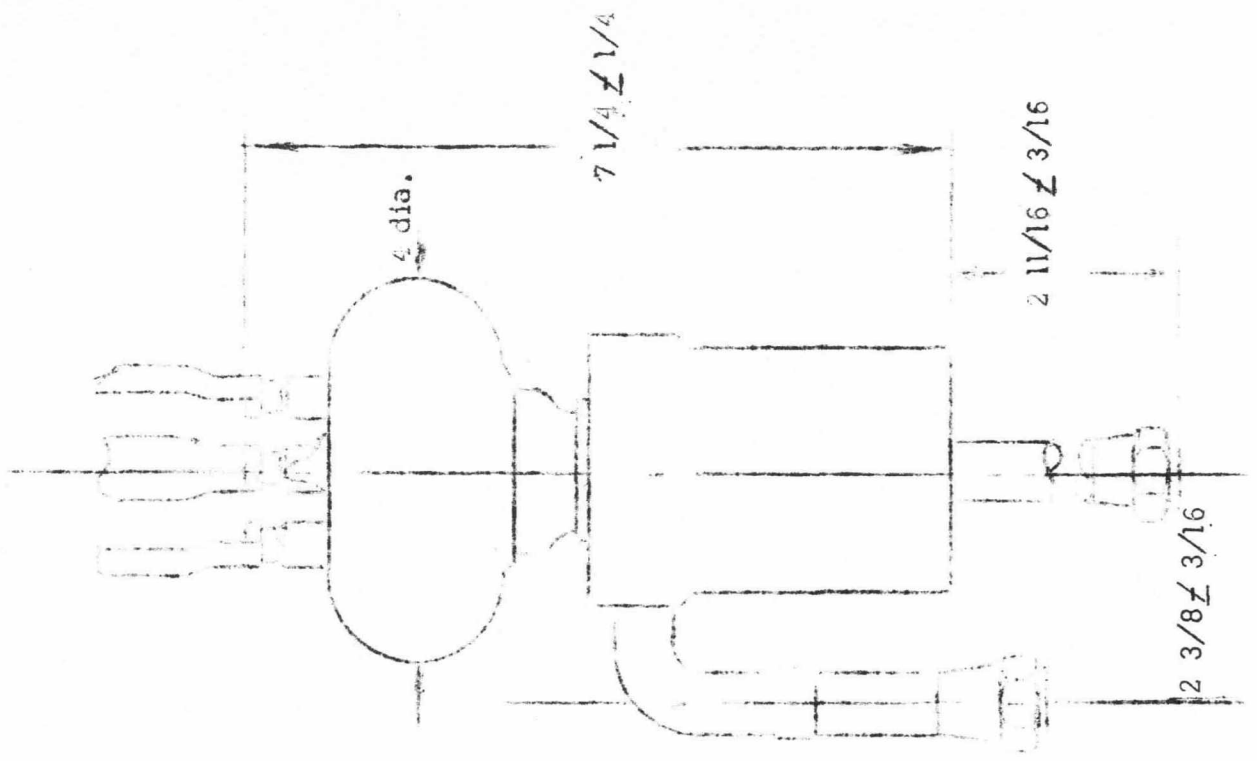
ELECTRICAL (CLIPPER)

Filament Voltage 16.2 volts
Filament Current 39 amperes
Peak Inverse Voltage (max.) 25 kilovolts
Peak Anode Current (max.) 160 amperes
RMS Anode Current 8 amperes

16.2 volts
39 amperes
25 kilovolts
160 amperes
4 amperes

See Safety Code for Industrial Use of X-Rays published by A.S.A.







TUBE TYPE XD-49

PULSE CHARACTERISTIC PLATE CURVE

CHARLES BRUNING COMPANY, Inc.
MADE IN U. S. A.

BRUNING 700-20
10 X 10 TO 1/2 INCH

ANODE AMPERES

$E_f = 16.2 \text{ V.a.c.}$

