

# ML-322

## DESCRIPTION & RATINGS

### DESCRIPTION

The ML-322 is an ultra-high-frequency diode of the planar-electrode type designed for use as a modulation clipper at frequencies up to 1500 Mc. Lead inductances and r-f losses are minimized by a compact, rugged construction with

ring-type seals, making the tube ideally suited to cavity-type circuits. The electrode spacing is about 0.008". The cathode is an indirectly-heated, oxide-coated disc. The anode is convection cooled and is capable of dissipating 15 watts.

### GENERAL CHARACTERISTICS

#### Electrical

Heater Voltage .....	6.3 Volts
Heater Current at 6.3 volts, approximate .....	.95 Amps
Heater Heating Time, minimum (Before Applying Plate Voltage) .....	60 Seconds
Interelectrode Capacitance .....	3.5 uuf

#### Mechanical

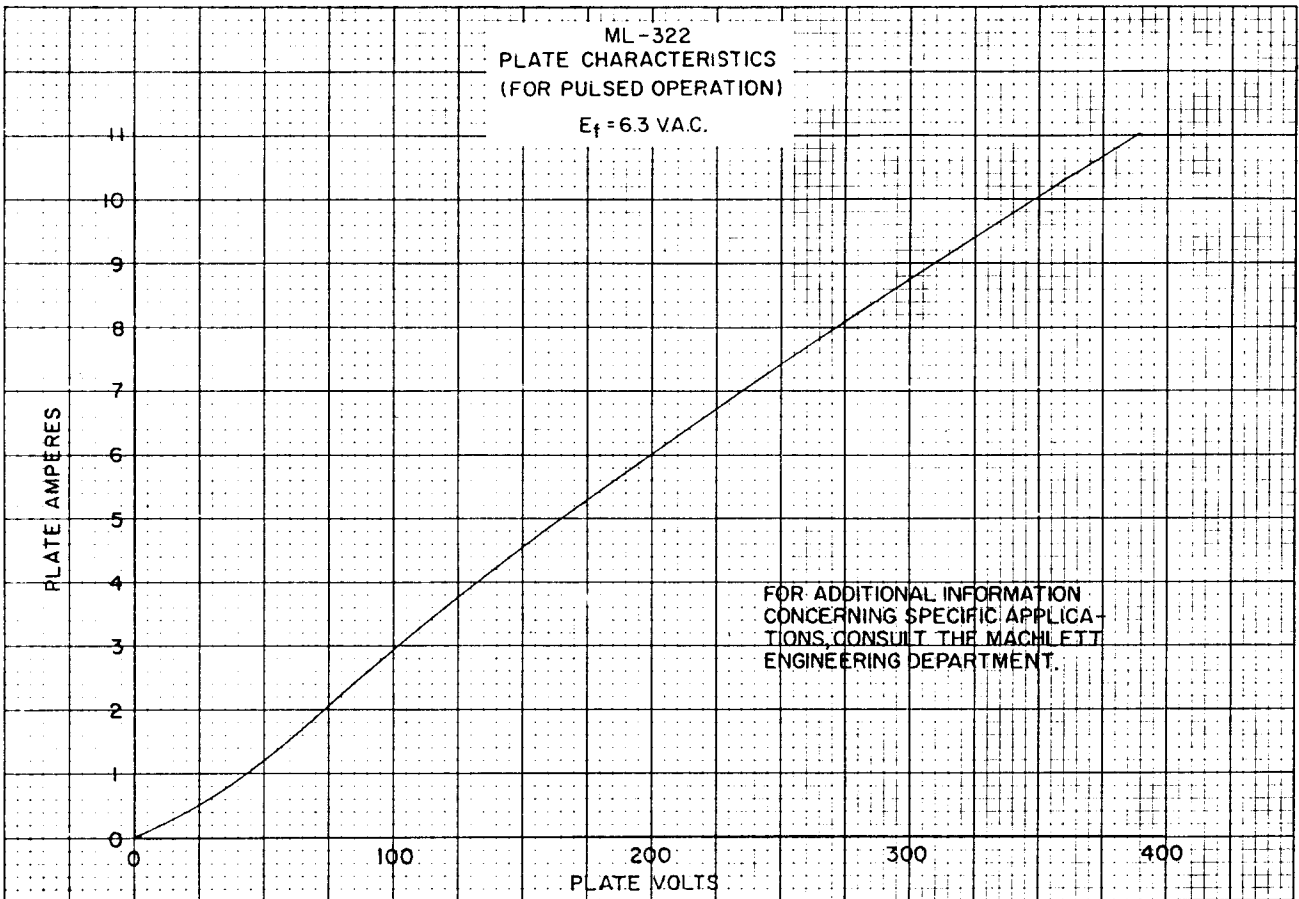
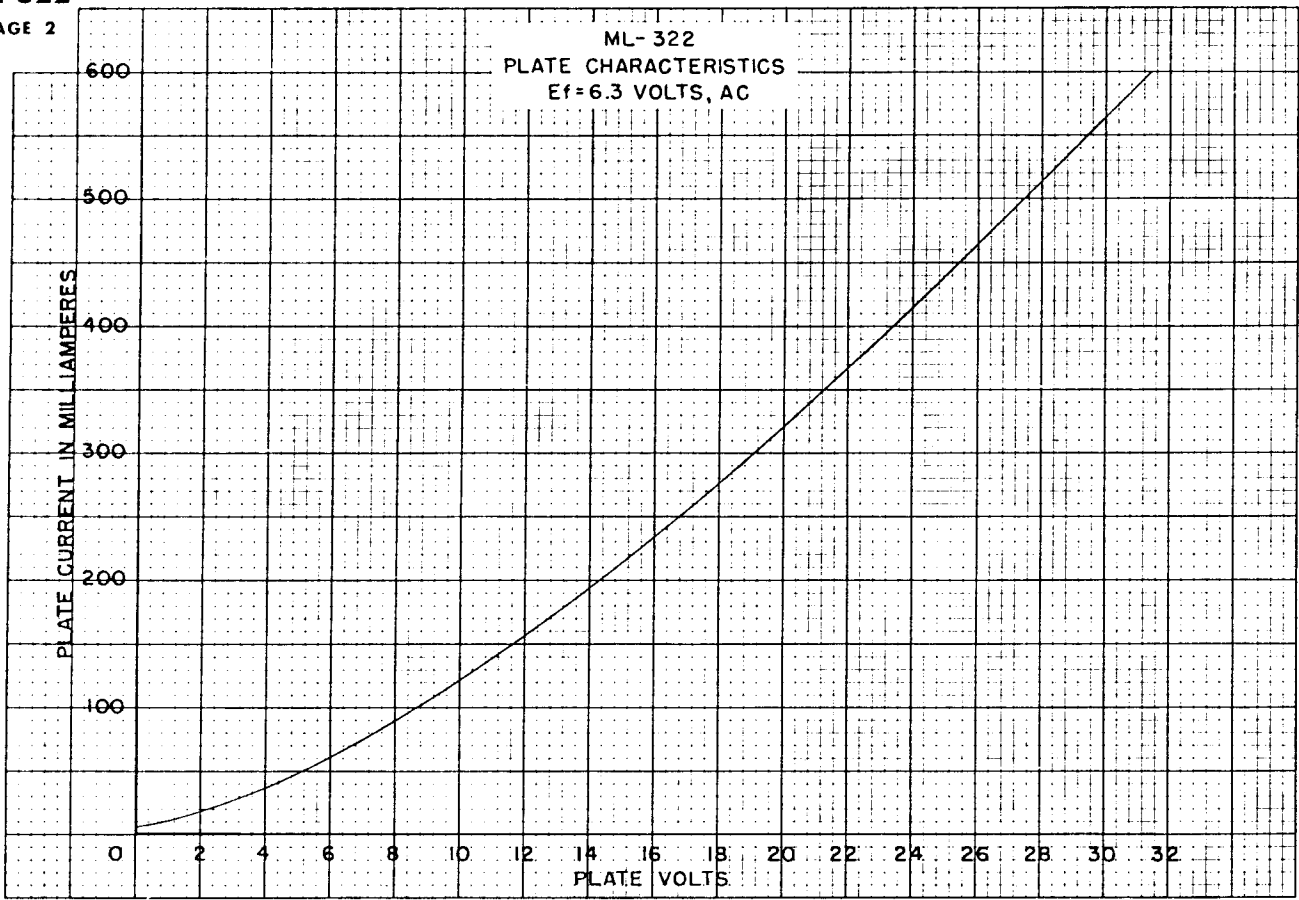
Mounting Position .....	Optional
Maximum Seal Temperature .....	160 °C
Net Weight, approximate .....	0.25 lbs.

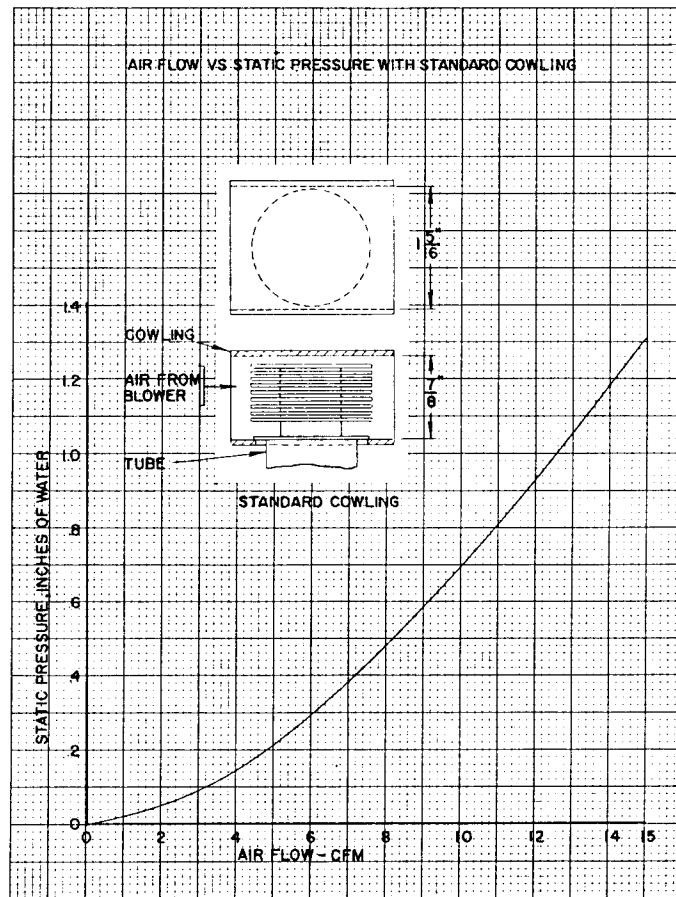
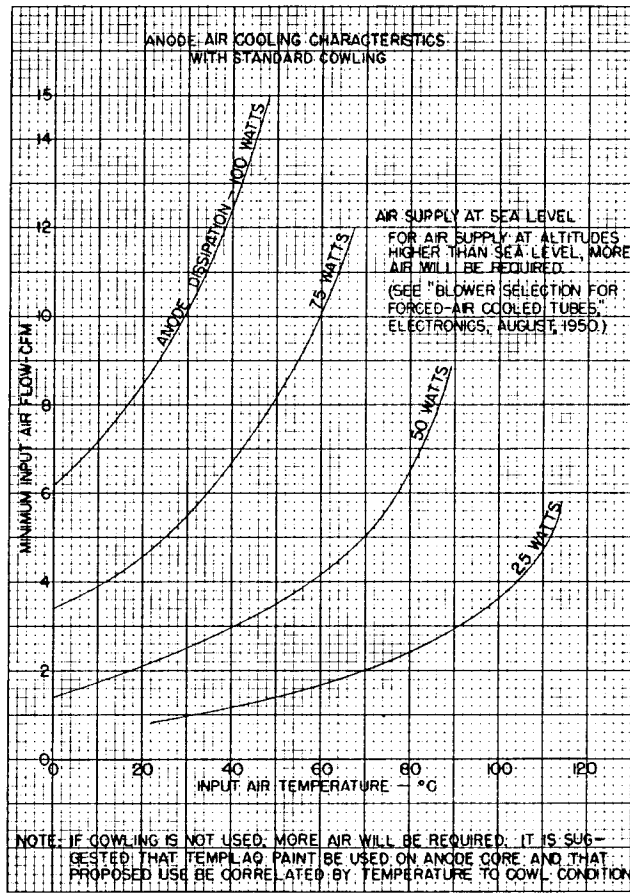
### MAXIMUM RATINGS

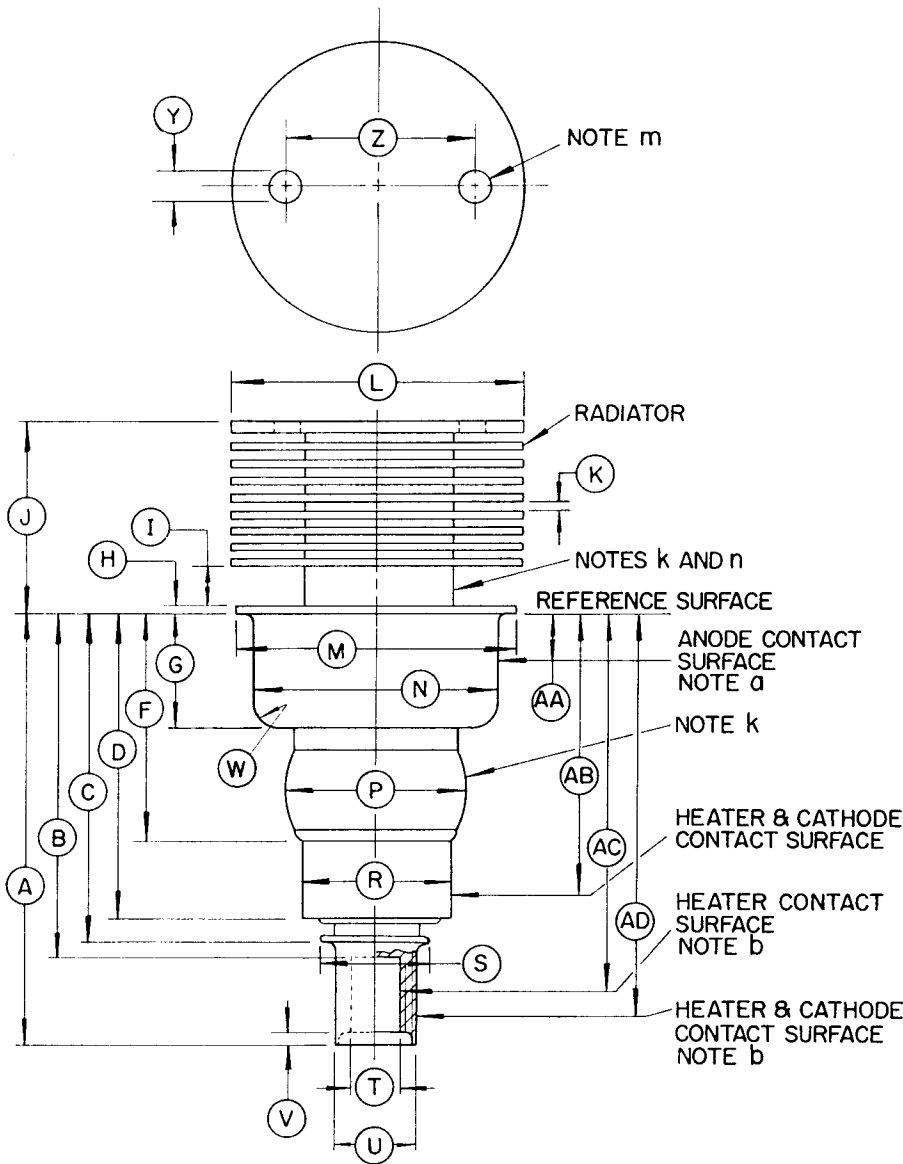
#### Maximum Ratings, Absolute Values

Peak Inverse Voltage .....	800 Volts
Peak Plate Current .....	600 mA <sub>dc</sub>
Average Plate Current .....	100 mA <sub>dc</sub>
Average Plate Dissipation .....	15 watts*

\* Plate dissipation up to 100 watts may be obtained with forced-air cooling.







DIMENSIONS FOR OUTLINE (INCHES)

Ref.	Minimum	Maximum
A	1.788	1.858
B	—	1.517
C	—	1.458
D	1.252	1.292
F	—	1.000
G	.459	.479
H	—	.040
I	.125	—
J	.736	.826
K	.015	—
L	1.235	1.265
M	1.788	1.199
N	1.021	1.039
P	—	.812
R	.652	.668
S	—	.545
T	.213	.223
U	.312	.328
V	—	.086
W	—	.100
Y	.105	.145
Z	.650	.850

NOTES

- a. The total indicated runout of the anode contact surface with respect to the cathode contact surface will not exceed 0.030 inch.
- b. The total indicated runout of the heater contact surface with respect to the cathode contact surface will not exceed 0.018 inch.
- k. Do not clamp or locate on this surface.
- m. Hole provided for tube extractor through the top fin only.
- n. Measure anode shank temperature on this surface.

DIMENSIONS FOR ELECTRODE CONTACT AREA (INCHES)

Ref.	Dimension	Contact
AA	0.195 ± .163	Anode
AB	1.210 ± .040	Cathode & Heater
AC	1.610 ± .092	Heater
AD	1.623 ± .165	Cathode & Heater

DIMENSIONS — ML-322

**MACHLETT LABORATORIES, INC.**

SPRINGDALE



CONNECTICUT

U. S. A.