DESCRIPTION
The ML-8224 is a high-vacuum rectifier tube having a maximum inverse voltage rating of 150 PKV using oil insulation or 80 PKV using air insulation and a maximum peak anode current rating of .75 ampere. It is especially suitable for use in high-voltage hold-off applications, voltage multiplier circuits, energy storage capacitor circuits, and other applications where high peak power is required. This tube incorporates those special features of construction which characterize Machlett high-vacuum rectifiers for high-power-level applications. These features insures ruggedness, long life, low internal voltage drop and high average-load-current capacity. The cathode is a low-wattage, thoriated-tungsten filament. The cylindrical molybdenum anode provides a high rate of heat dissipation with an adequate safety factor against accidental overload.

GENERAL CHARACTERISTICS

ELECTRICAL
- Filament Voltage
- Filament Current at 5.5 Volts, approximate
- Filament Heating Time, minimum (Before applying anode voltage)
- Tube Voltage Drop (Ib = 0.750 Ampere, Ef = 5.5 Volts)

5.5 V* 6.5 A 2 Sec 1000 V

* Applied filament voltage must be held within ±5% of rated voltage. For maximum life, filament voltage should be maintained as close as possible to rated voltage under all conditions of voltage.

MECHANICAL
- Mounting Position
- Mounting Socket, Machlett Part No.
- Type of Cooling
- Insulating Medium
- Net Weight

Optional P-8835 Radiation Oil or Air 16 Oz

MAXIMUM RATINGS

Peak Inverse Anode Voltage
- Oil Insulation
- Air Insulation

150,000 v 80,000 v

Peak Anode Current

0.75 A

Anode Dissipation

60 W

Load Current (Average D-C)

Circuit Application: Unfiltered† Filtered‡
- Single-phase, two-tube, half-wave 0.125 0.270
- Single-phase, four-tube, full-wave 0.250 0.750
- Three-phase, double-Y parallel 0.750 0.750
- Three-phase, full-wave 0.375 0.375

† Unfiltered Load Current Ratings are based on sine-wave input and resistance load without inductive or capacitive effects.
‡ Filtered Load Current Ratings are based on sine-wave voltage input and inductive choke input filter.

WARNING: Operation of this tube may produce x-rays. Adequate rayproof shielding must therefore be provided in the equipment.
DIMENSIONS FOR OUTLINE

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<th>Ref.</th>
<th>Minimum</th>
<th>Nominal</th>
<th>Maximum</th>
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<tbody>
<tr>
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<tr>
<td>J</td>
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</tbody>
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NOTE:
1. Cathode base fits Machlett mounting socket part P-8835.

DIMENSIONS — ML-8224

PLATE CURRENT CHARACTERISTICS

THE MACHLETT LABORATORIES, INC.

An Affiliate of Raytheon Company

SPRINGDALE, CONNECTICUT

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