



ML-298A
ML-298B

DESCRIPTION AND RATINGS

DESCRIPTION

The ML-298A and ML-298B are three-electrode tubes designed for use as modulators, amplifiers, or oscillators in radio-transmitting service. The cathode for each type is a pure-tungsten filament. The anode is water cooled and is capable of dissipating 100 kilowatts. Maximum ratings of 20 kVdc and 11 amperes apply at frequencies up to 4 mc/sec; operation at 20 mc/sec is permissible with plate voltage reduced to 12 kVdc.

The ML-298A and ML-298B embody all the techniques and skills that have been inherently a part of Machlett Laboratories, Inc., since 1897. All parts are thoroughly processed by special Machlett techniques, which prevent contamination and assure complete and permanent outgassing. The tubes are exhausted by a straight-line, high-voltage process assuring the same high standards as characterize the Machlett line of high- and super-voltage x-ray tubes.

GENERAL CHARACTERISTICS

	ML-298A	ML-298B
Electrical		
Filament Voltage	27	27 volts
Filament Current at 27 volts	225	225 amperes
Filament Starting Current	340	340 amperes
Filament Cold Resistance0096	.0096 ohms
Amplification Factor	32	57.5
Grid-Plate Transconductance	22000	20000 uMhos
Interelectrode Capacitances		
Grid-Plate	48	50 uuf
Grid-Filament	30	31 uuf
Plate-Filament	11	11 uuf
Mechanical		
Mounting Position	Vertical, anode down	
Type of Cooling	Water	
Water Flow on Anode (minimum)	35 gpm	
Maximum Outgoing Water Temperature	75 °C	
Net Weight, approximate	28 lbs.	

MAXIMUM RATINGS

Direct Plate Voltage	20000 volts
Direct Plate Current	11 amperes
Plate Dissipation	100000 watts
Direct Grid Dissipation	1000 watts
R.F. Grid Current	75 amperes
Frequency	4 megacycles

The above are maximum ratings which do not apply simultaneously but depend on the type of service specified below.