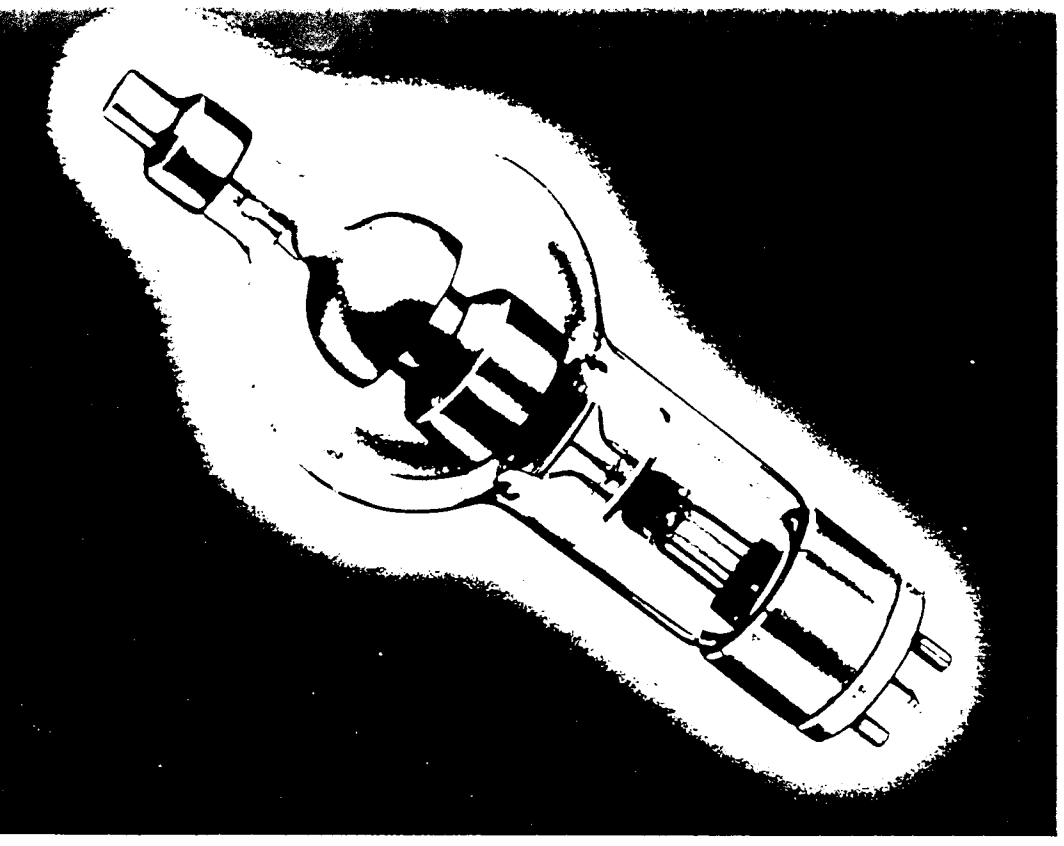

MACHLETT

ML-869B

DESCRIPTION AND RATINGS

DESCRIPTION

The ML-869B is a two-electrode, mercury-vapor tube designed for use as a half-wave rectifier in radio transmitting and r.f. heating equipment. Unique features, including low internal voltage drop and cathode design permitting in-phase or quadrature filament excitation, contribute to efficient and economical operation. Maximum ratings of 20 PKV inverse anode voltage and 2.5 amperes average anode current apply at frequencies of 25 to 150 cycles per second.

GENERAL CHARACTERISTICS

Electrical	
Filament Voltage	5 Volts
Filament Current	19 Amperes
Filament Heating Time, Minimum*	1 Minute
Tube Voltage Drop, approximate	15 Volts
Critical Anode Voltage	100 Volts
Mechanical	
Mounting Position	Vertical, Base Down
Type of Cooling	Convection or Forced-Air
Base	3-Pin Jumbo, RMA No. A3-20
Cap	Skirted Large, RMA No. C1-9
Net Weight, approximate	1½ Pounds

* Before applying anode voltage, sufficient time must be allowed to bring the condensed mercury temperature, measured at top edge of base, within the specified range.

MAXIMUM RATINGS

In-Phase Filament Excitation		
Maximum Peak Inverse Anode Voltage		
Type of Cooling	Convection	Forced-Air
150 Cycles or Less	10000	20000 Volts
Condensed Mercury Temperature Range	30-60	30-40 °C
Maximum Anode Current		
Instantaneous, 25 to 150 Cycles	10.0 Amperes	
Average, 30 Seconds Averaging Time	2.5 Amperes	
Surge, for Design Only	100.0 Amperes	
Duration of Surge Current	0.1 Second	

Quadrature Filament Excitation**

Maximum Peak Inverse Anode Voltage	
Type of Cooling	Forced-Air
150 Cycles or Less	15000 Volts
Condensed Mercury Temperature Range	30-40 °C
Maximum Anode Current	
Instantaneous, 25 to 150 Cycles	20.0 Amperes
Average, 30 Seconds Averaging Time	5.0 Amperes
Surge, for Design Only	100.0 Amperes
Duration of Surge Current	0.1 Second

**Filament current 90° ± 30° out of phase with anode current.