



# Triode Type BR 189

HF AMPLIFIER AND OSCILLATOR

**General.** The BR 189 is a forced-air-cooled transmitting triode fitted with a thoriated tungsten filament.

**Cooling.** The anode forms part of the valve envelope and is fitted with a radiator for forced air cooling. The characteristics given show the air inlet temperature °C/anode + grid loss for the conditions of suction air cooling.

The external grid and filament seals also require air cooling. The air flow necessary is approximately 20 cu. ft. per minute and should be directed vertically downwards on to the valve from a 1-in. nozzle.

The temperature of the anode must not exceed 180°C and that of the grid and filament seals must not exceed 140°C.

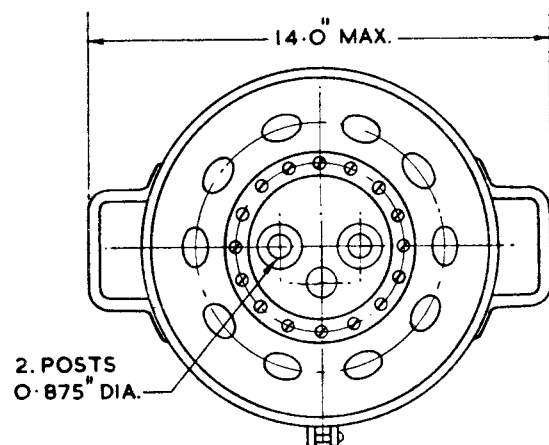
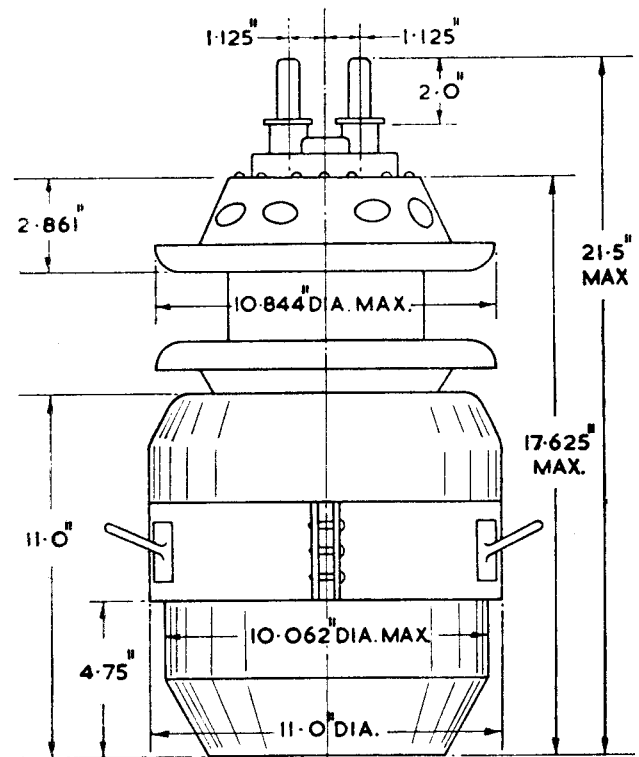
The air flow must be started before the application of any supply voltage and must be continued for at least one minute after the removal of all supply voltages.

**Filament Starting.** The cold filament resistance is approximately 0.0042 Ω. The filament current must not exceed 600 A even momentarily, at any time.

## APPROXIMATE DATA

$V_f$	9	$V^*$
$I_f$	240	A
$I_k$ (pk)	70	A
$V_a$ (max)	12	kV
$P_a$	27	kW
$P_{gl}$	1.25	kW
$\mu$	34	
$g_m$		
$f$ (max) (at full ratings)	50	Mc/s
$C_{a-gl}$	51	pF
$C_{a-k}$	1.5	pF
$C_{gl-k}$	68	pF

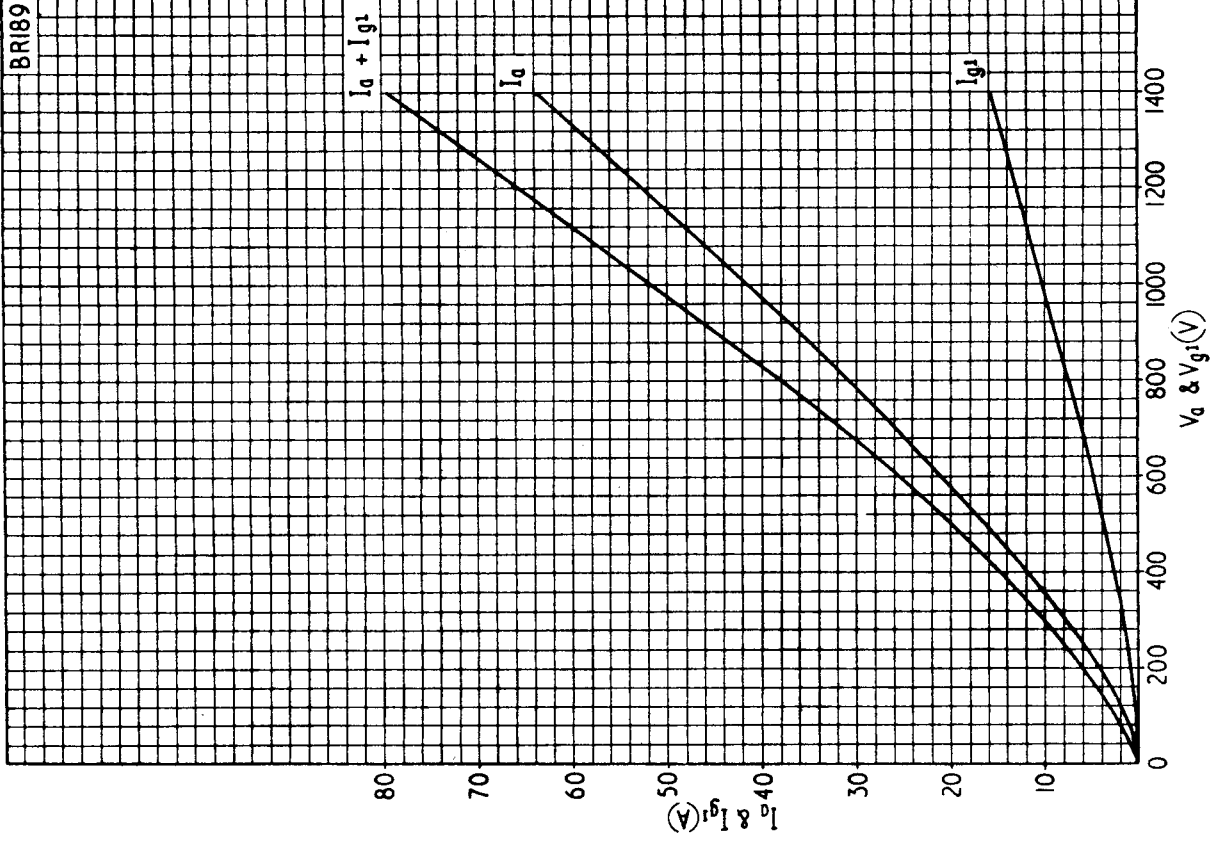
\* The valve must be operated at the stated filament voltage.



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