



# Triode Type BR154

VHF AMPLIFIER

**General.** The BR 154 is a forced-air-cooled transmitting triode fitted with an indirectly heated oxide-coated cathode. The valve is particularly suitable for use in grounded-grid circuits.

**Cooling.** The anode requires forced air cooling. The air cooling characteristics given show radiator temperature rise °C/anode dissipation for various air-flow values. The following temperatures must not be exceeded.

Air inlet temperature 45°C

Radiator temperature 180°C

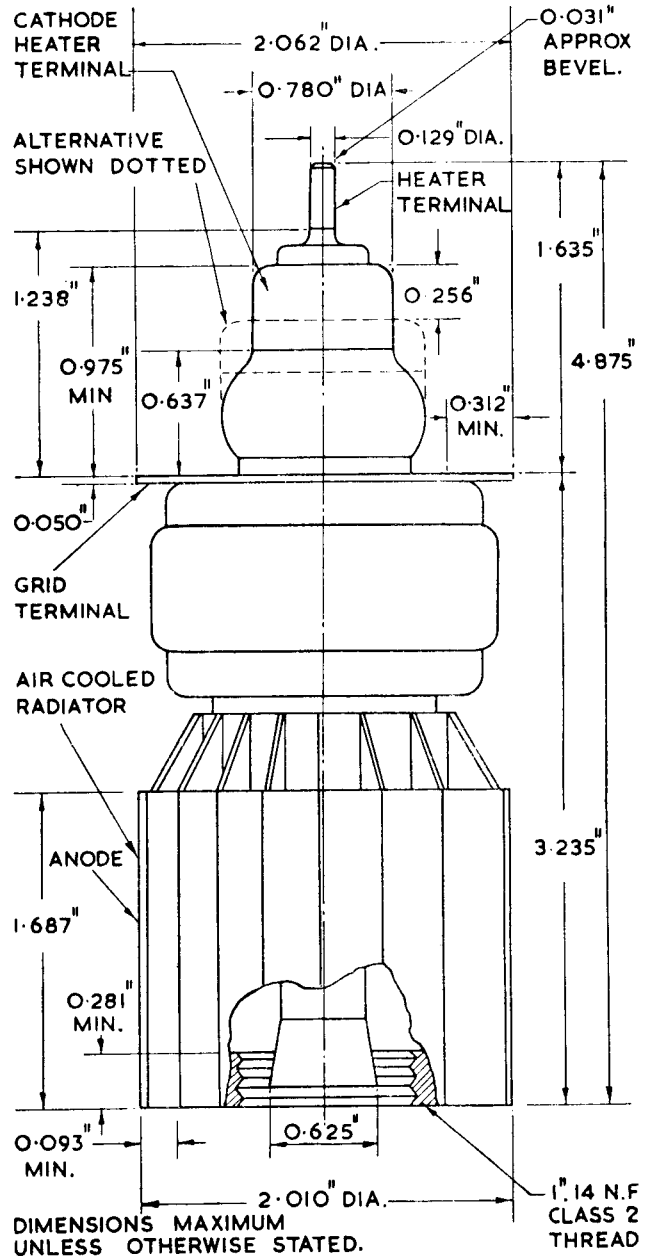
(measured on the core at end away from incoming air)

Bulb temperature 180°C

Grid seal temperature 140°C

The air-flow should be directed towards the bulb and over the grid terminal. Air-flow should be started before the application of any supply voltage and should be continued for at least one minute after the removal of any supply voltages.

WEIGHT 1 lb. (0.5 kg.)



MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED

Head Office: Marconi House, Chelmsford, England. Telephone: Chelmsford 3221. Telegraphic Address: Expanse, Chelmsford

### APPROXIMATE DATA

$V_h$	3.3	V
$I_h$	11.5	A
$t_k$ (min)	2	min.
$\mu$	25	
$f$ (max)	220	Mc/s
$C_{a-gl}$	10.3	pF
$C_{a-k}$	0.5	pF
$C_{gl-k}$	26	pF

### RF POWER AMPLIFIER AND OSCILLATOR CLASS C TELEGRAPHY

(Unmodulated, one valve, key down conditions)

Maximum permissible ratings

$V_a$	1,500	V
$V_{gl}$	-250	V
$I_a$	300	mA
$I_{gl}$	50	mA
$P_{in}$	450	W
$p_a$	250	W

### Typical Operation

Grounded-cathode circuit

$f$	220	Mc/s
$V_a$	1,500	V
$V_{gl}$	(i) from fixed supply of (ii) via $R_k$	-175 V
$V_{gl}$ (pk)	210	V
$I_a$	300	mA
$I_{gl}$ (a)	40	mA
$P_{dr}$ (a)	8	W
$P_{out}$ (a)	290	W

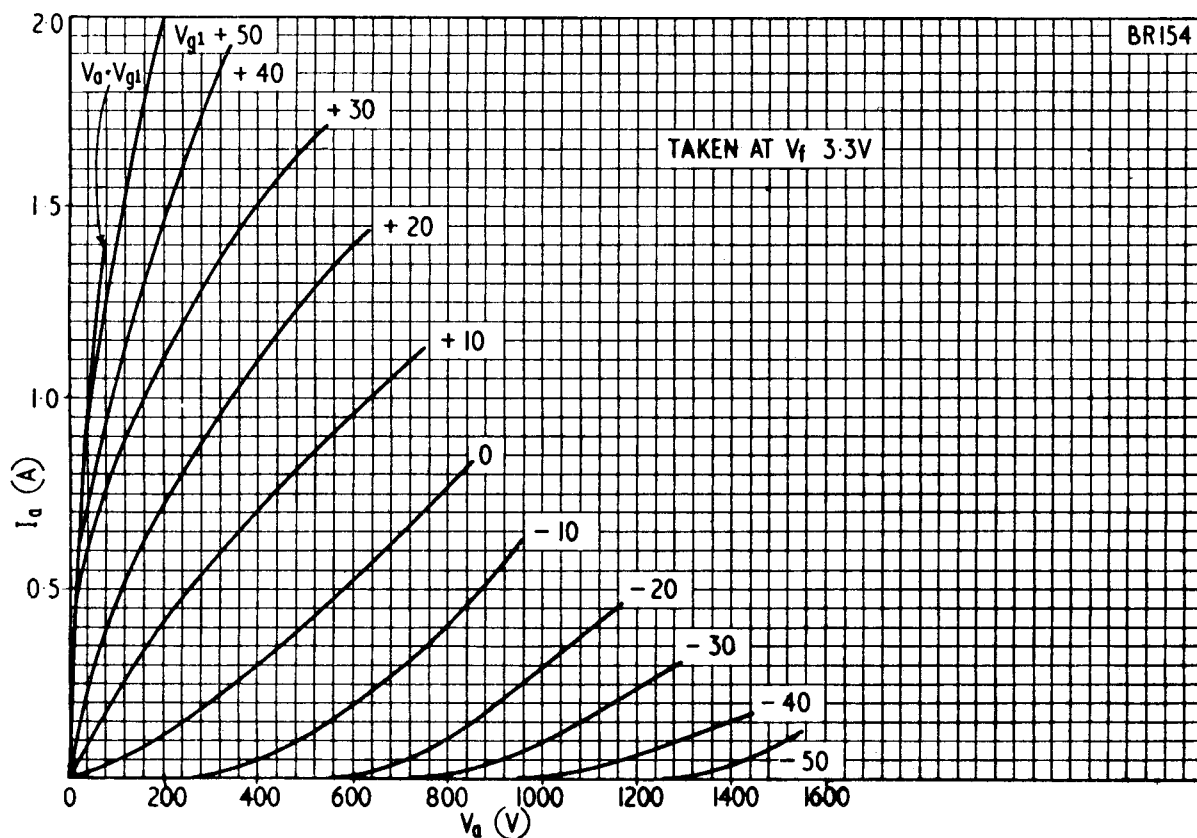
Grounded-grid circuit

Same values as for grounded-cathode circuit but with following exceptions:

$P_{dr}$ (a)	65	W
$P_{out}$ (a)	325	W

### NOTES

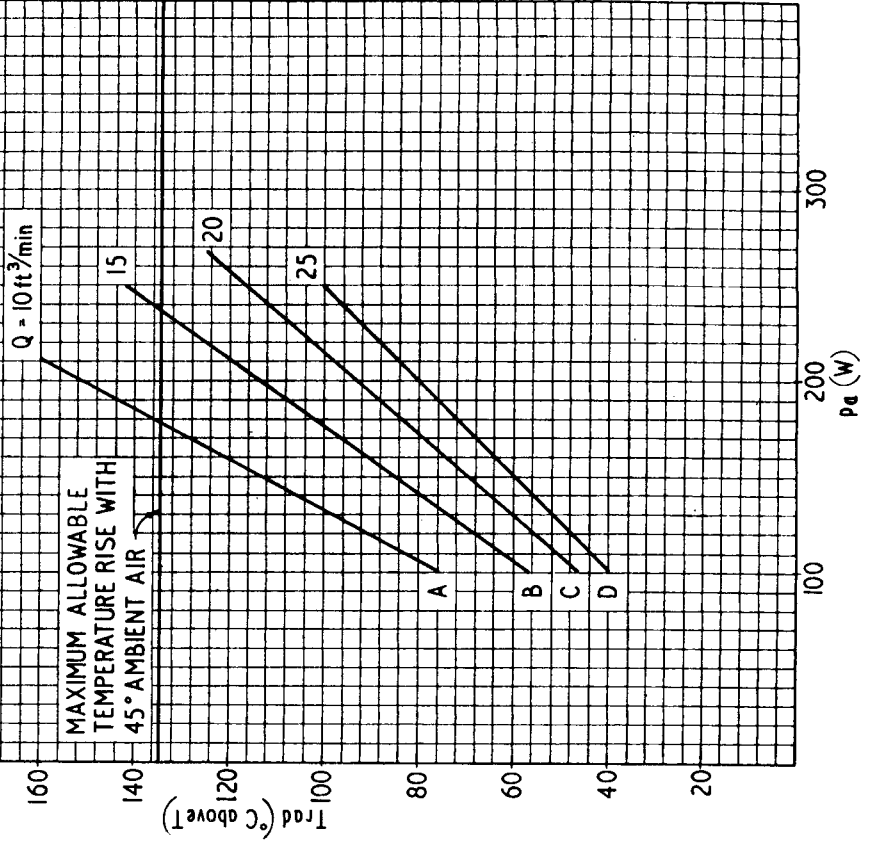
(a) Figures are approximate only.



BR154

TAKEN AT  $V_f$  3.3V

CURVE	$A_p$ (in. W.G.)
A	0.17
B	0.33
C	0.55
D	0.82



BR154

TAKEN AT  $V_f$  3.3V

