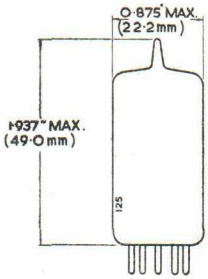
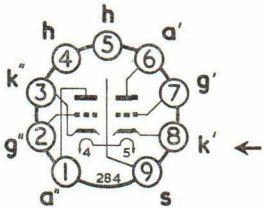


GENERAL PURPOSE TWIN TRIODE



B9A Base

GENERAL

This general purpose twin triode is intended for use in AC or AC/DC television receivers. The two triodes have identical characteristics.

Heater Voltage	V_h	6·3	V
Heater Current	I_h	0·3	A

RATINGS

Maximum Anode Dissipation (either section)	P_a(max)	2·0*	W
Maximum Total Anode Dissipation	P_a(tot)max	2·5*	W
Maximum Anode Voltage	V_a(max)	250	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h\text{-}k}$(r.m.s.)max	150†	V

* The permissible anode dissipation rating is a function of the grid to cathode resistance and circuit employed. For the values quoted, the grid to cathode resistance should not exceed 0·25MΩ with cathode self bias.

† Measured with respect to the higher potential heater pin.

INTER-ELECTRODE CAPACITANCES

		‡	§	
Grid′ to Earth	$c_{g'\text{-}E}$	2·5	3·5	pF
Grid″ to Earth	$c_{g''\text{-}E}$	2·4	3·5	pF
Anode′ to Earth	$c_{a'\text{-}E}$	2·1	3·2	pF
Anode″ to Earth	$c_{a''\text{-}E}$	2·0	2·9	pF
Anode′ to Grid′	$c_{a'\text{-}g'}$	2·5	2·8	pF
Anode″ to Grid″	$c_{a''\text{-}g''}$	2·5	2·8	pF
Anode′ to Anode″	$c_{a'\text{-}a''}$	0·038	0·038	pF
Grid′ to Grid″	$c_{g'\text{-}g''}$	0·006	0·0064	pF
Grid′ to Anode″	$c_{g'\text{-}a''}$	0·014	0·015	pF
Grid″ to Anode′	$c_{g''\text{-}a'}$	0·012	0·012	pF

‡ With holder capacity balanced out.

§ Total capacity including B9A ceramic holder (Carr Fastener holder type 77/076)

" Earth " denotes the electrodes of any second valve section and the remaining earthy potential electrodes of the section under measurement, heater and shields joined to cathode.

CHARACTERISTICS (Each section)

Anode Voltage	V_a	200	V
Anode Current	I_a	10	mA
Grid Voltage	V_g	−7·7	V
Mutual Conductance	gm	3·4	mA/V
Amplification Factor	μ	18	

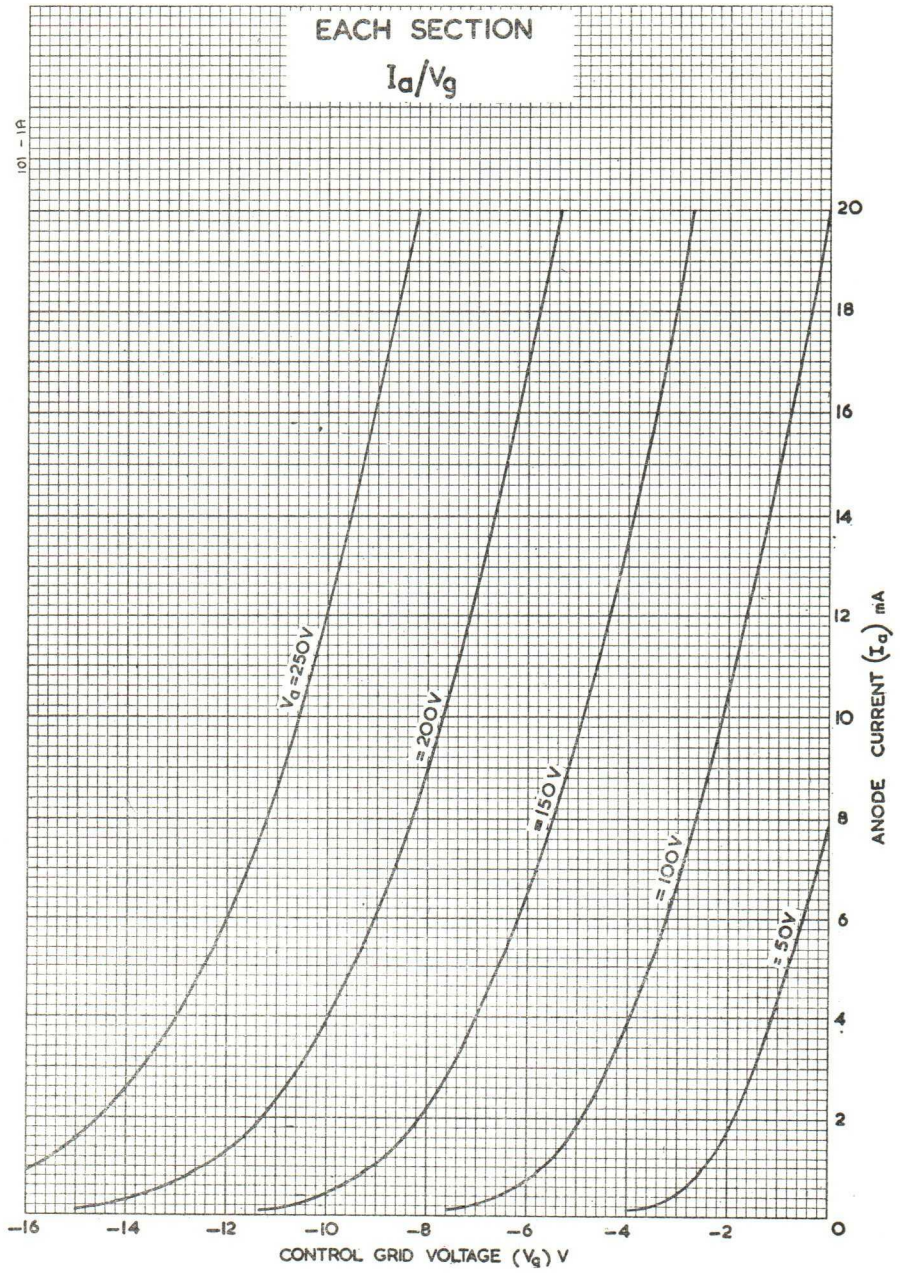
MOUNTING POSITION—Unrestricted

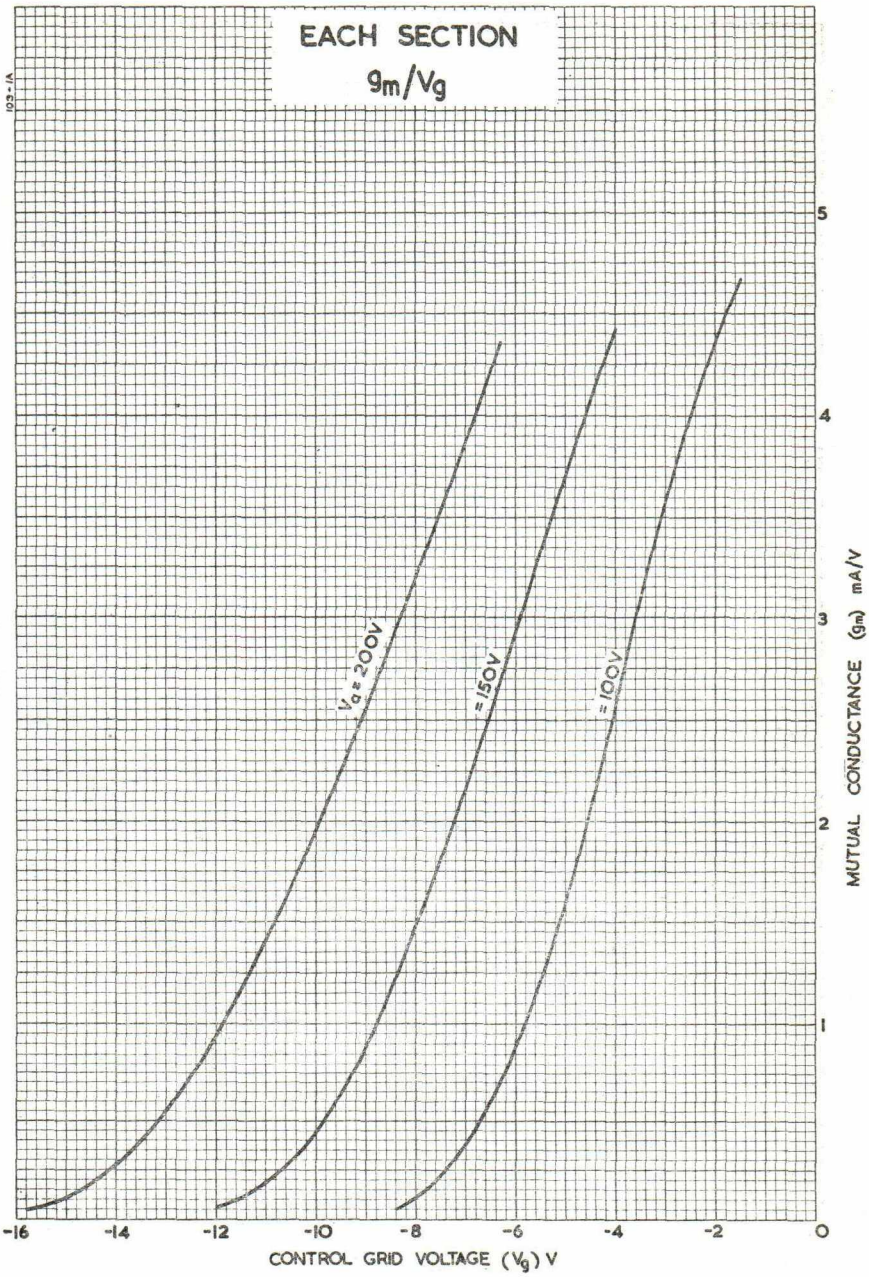
APPROXIMATE WEIGHT

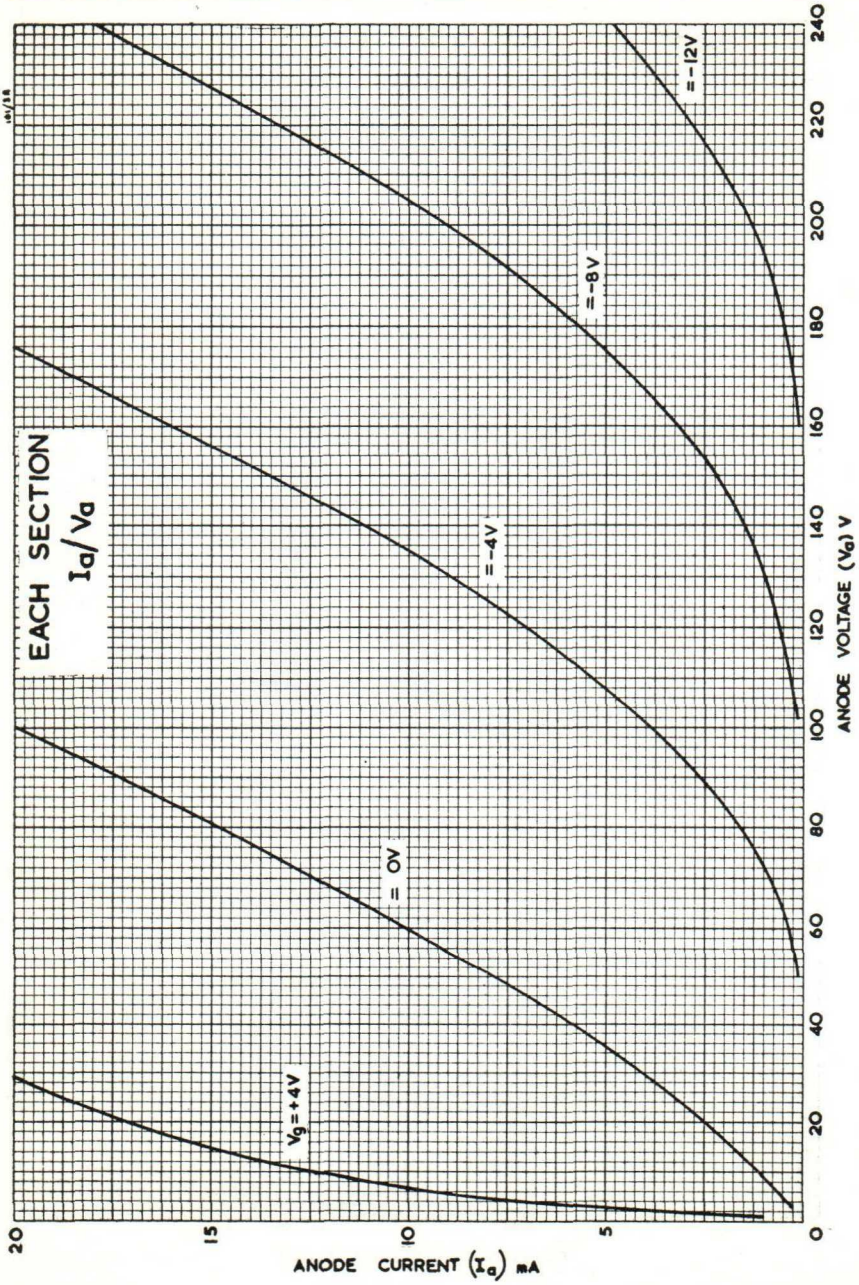
Net	0·5	oz
Packed	0·75	oz

NOTE. The potential of the internal shield must not be positive to that of either cathode.

Indicates a change ←


EACH SECTION
Ia/Vg
101 - 1A
Va = 250V
= 200V
= 150V
= 100V
= 50V
20
18
16
14
12
10
8
6
4
2
0
ANODE CURRENT (Ia) mA
-16
-14
-12
-10
-8
-6
-4
-2
CONTROL GRID VOLTAGE (Vg) V


EACH SECTION
gm/Vg
193-1A
Va = 200V
= 150V
= 100V
-16
-14
-12
-10
-8
-6
-4
-2
0
CONTROL GRID VOLTAGE (Vg) V
1
2
3
4
5
MUTUAL CONDUCTANCE (gm) mA/V


EACH SECTION
Ia/Va
Vg=+4V
= 0V
=-4V
=-8V
=-12V
ANODE CURRENT (Ia) mA
20
15
10
5
0
20
40
60
80
100
120
140
160
180
200
220
240
ANODE VOLTAGE (Va) V