

V.H.F. DOUBLE TRIODE

PCC189

Variable- μ , low noise v.h.f. frame grid double triode with high mutual conductance for use as a cascode amplifier.

HEATER

I_h	300	mA
V_h	7.6	V

CAPACITANCES

	Shielded	Unshielded
$C_{a'-a''}$	< 15	< 45 mpF
$C_{g'-a''}$	< 4.0	< 4.0 mpF

Grounded cathode section

$C_{a'-g'}$	1.9	1.9 pF
$C_{g'-k'+h+s}$	3.5	3.5 pF
$C_{a'-k'+h+s}$	2.3	1.7 pF
$C_{g'-h}$	< 280	< 280 mpF

Grounded grid section

$C_{a''-g''}$	1.9	1.9 pF
$C_{k''-g''+h+s}$	6.0	6.0 pF
$C_{a''-g''+h+s}$	4.0	3.4 pF
$C_{k''-h}$	3.0	3.0 pF
$C_{a''-k''}$	170	180 mpF

CHARACTERISTICS (each section)

V_a	90	V
V_g	-1.4	V
I_a	15	mA
g_m	12.5	mA/V
r_a	2.5	k Ω
μ	34	
V_g (for 20 : 1 reduction in g_m)	-5.0	V
V_g (for 100 : 1 reduction in g_m)	-9.0	V

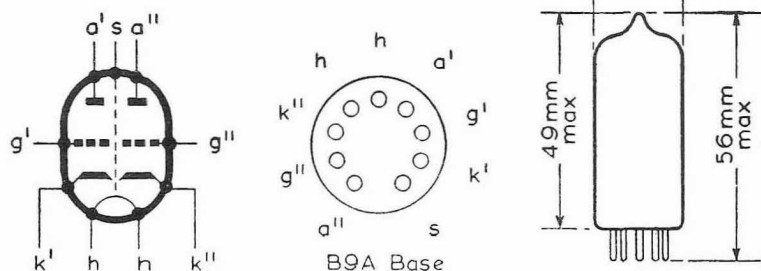
DESIGN CENTRE RATINGS (each section)

$V_{a(b)} \text{ max.}$	550	V
$V_a \text{ max.}$	130	V
$p_a \text{ max.}$	1.8	W
$I_k \text{ max.}$	22	mA
$-V_g \text{ max.}$	50	V
$R_{g'-k} \text{ max.}$	1.0	M Ω
$R_{g''-k} \text{ max.}$	500	k Ω
$V_{h-k'} \text{ max.}$	80	V
$V_{h-k''} \text{ max. (cathode positive)}$	180	V
$R_{h-k} \text{ max.}$	20	k Ω

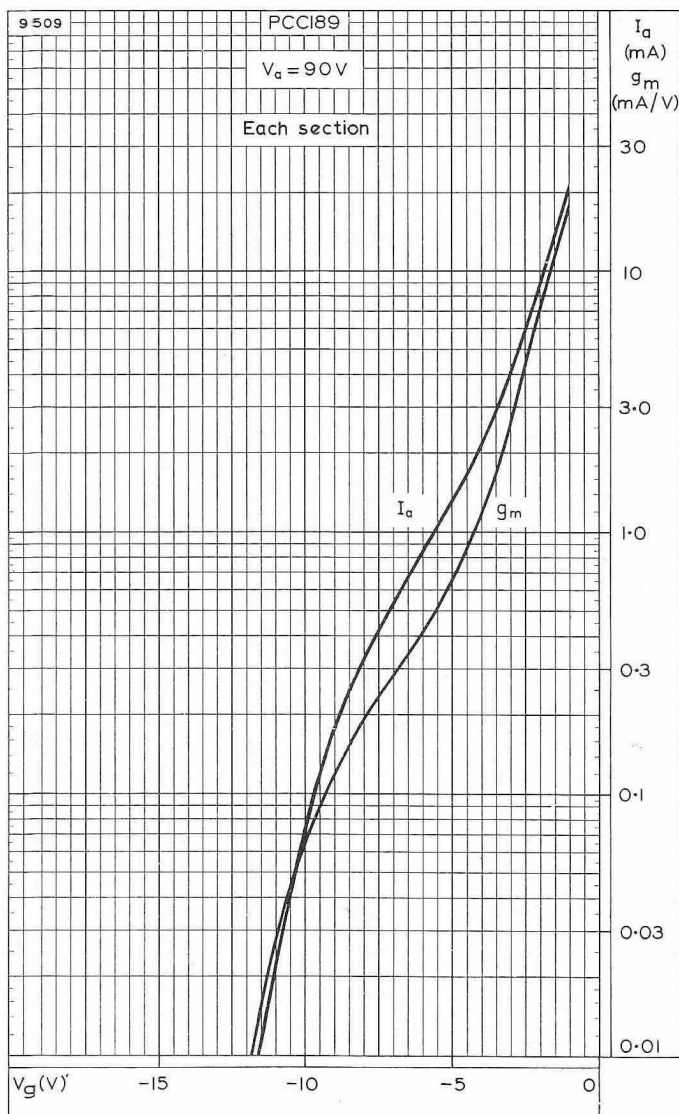
NOTE

In order not to exceed the maximum permissible anode voltage when the cascode amplifier is controlled, it is necessary to use a voltage divider for the grid of the grounded grid section.

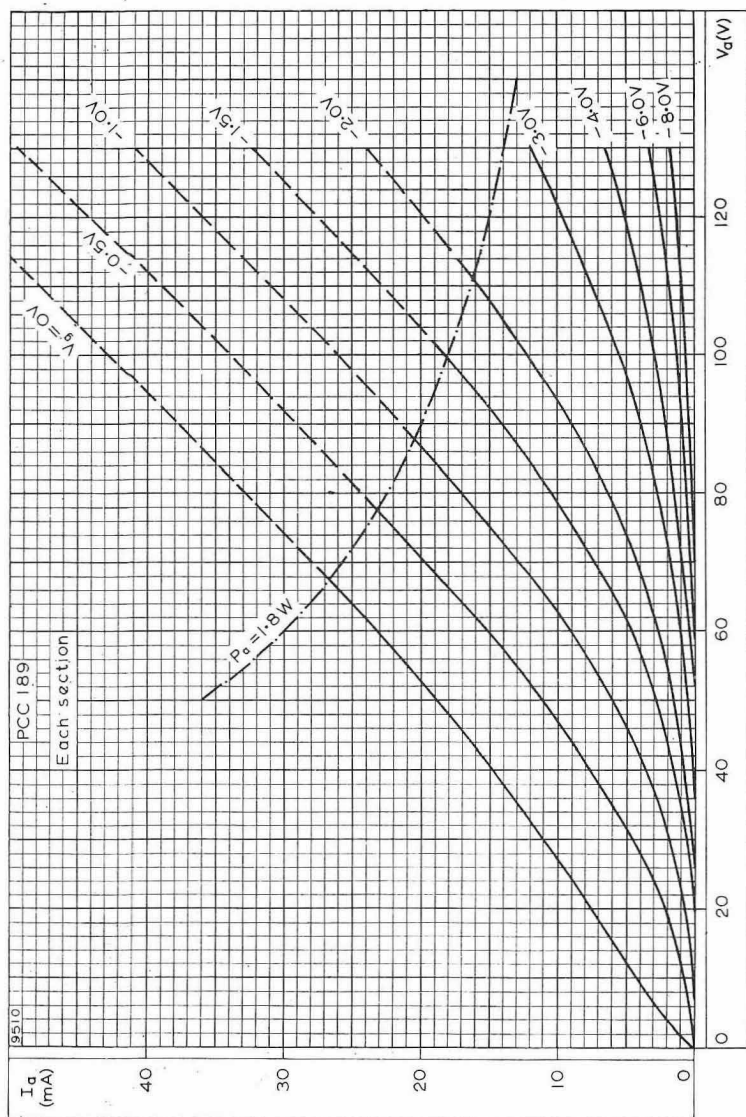
5242



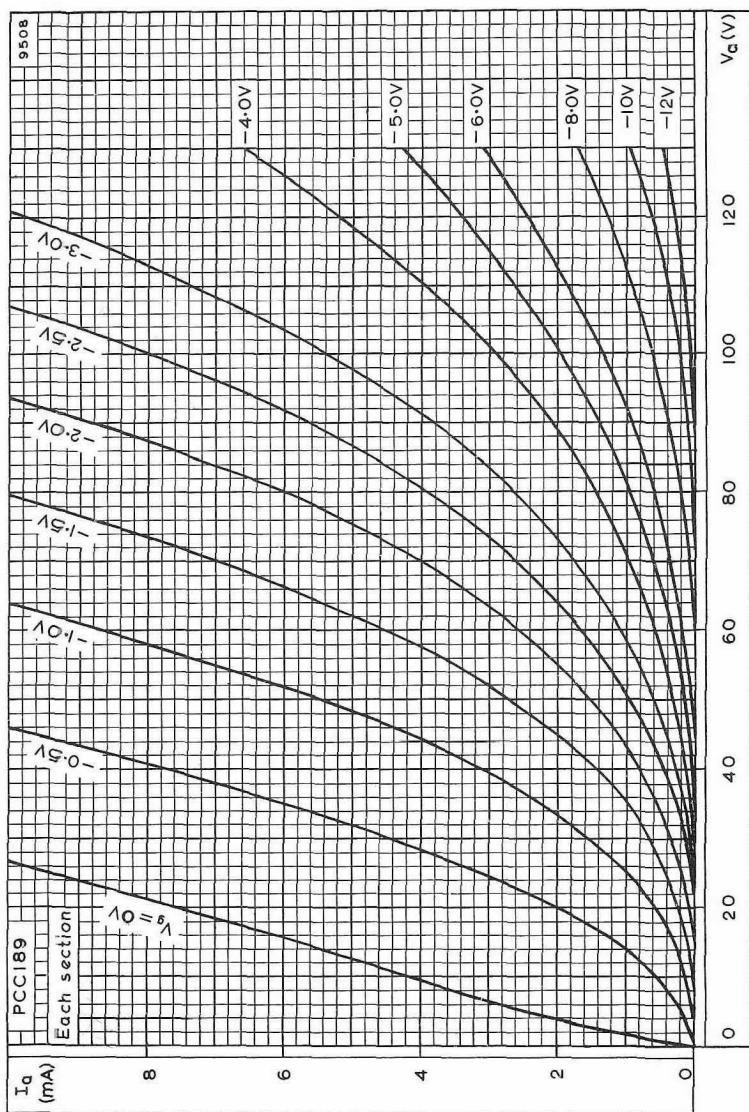
The triode on pins 6, 7, 8, should have the grounded cathode connection and that on pins 1, 2, 3, should have the grounded grid connection.



ANODE CURRENT AND MUTUAL CONDUCTANCE PLOTTED AGAINST GRID VOLTAGE



ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH GRID VOLTAGE AS PARAMETER



ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH GRID VOLTAGE AS PARAMETER IN THE REGION OF THE ORIGIN

(

(

(

(