

Alow- μ power double triode with separate cathodes intended for use as a series regulator valve in d.c. power supplies, in servo applications or as a booster triode.

HEATER

V_h	6.3	V
I_h	2.5	A

MOUNTING POSITION

Any

CAPACITANCES (measured without an external shield)

$*c_{a-g}$	8.6	pF
$*c_{in}$	5.5	pF
$*c_{out}$	2.5	pF
$*c_{h-k}$	7.0	pF
$c_{a''-a'}$	2.2	pF
$c_{g''-g'}$	0.5	pF

*Each section

CHARACTERISTICS

		$\dagger$	
V_b	-	135	V
V_a	100	-	V
I_a	100	125	mA
R_k	300	250	Ω
g_m	6.5	7.0	mA/V
r_a	300	280	Ω
μ	2.0	2.0	

$\dagger$ This condition represents operation at the absolute limit of anode current and dissipation.

CHARACTERISTIC RANGE VALUES FOR EQUIPMENT DESIGN

	Min.	Max.	
Heater Current			
at $V_h \approx 6.3V$	2.26	2.74	A
*Amplification factor			
at $V_b \approx 135V, R_k = 250\Omega$	1.4	2.6	

*Mutual Conductance

at $V_b = 135V$, $R_k = 250\Omega$ 5.8 8.2 mA/V

**Negative control grid current

at $V_b = 135V$, $R_k = 250\Omega$, $R_{g1} = 1M\Omega$ - 4.0 μA

Anode current

at $V_b = 135V$, $R_k = 250\Omega$ 100 150 mA

Under these conditions the Absolute Maximum Ratings can be exceeded.

*Each section

**Two sections in parallel

SHOCK AND VIBRATION

The 6080 can withstand vibrations of 2.5g at 25c/s for 32 hours and is proof against impact accelerations of 450g.

LOW FREQUENCY VIBRATION PERFORMANCE

R.M.S. output voltage max. 200 mV

Two sections in parallel with $V_h = 6.3V$, $V_b = 135V$, $V_{g1} = -7V$, $R_a = 2k\Omega$ and vibrational acceleration of 2.5g at 25c/s.

RATINGS (ABSOLUTE MAXIMUM SYSTEM)(each section)

$V_{a(b)}$ max.	550	V
V_a max.	250	V
†P.I.V. max. (booster scanning service)	3.0	kV
†-v _g (pulse) max. (booster scanning service)	2.3	kV
I_k max.	125	mA
p_a max.	13	W
R_{g-k} max. (cathode bias)	1.0	$M\Omega$
* R_{g-k} max. (fixed bias)	100	$k\Omega$
V_{h-k} (pk) max.	300	V
T_{bulb} max.	260	°C

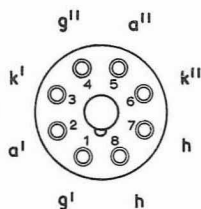
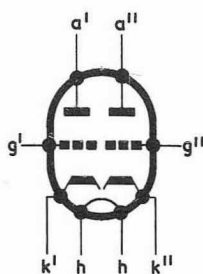
†Max. pulse duration 15% of one cycle with a maximum duration of 10 μs .

*With fixed bias the anode circuit should contain a protective resistance to provide a minimum drop of 15V d.c. at the normal operating conditions. When two or more sections are used in parallel at dissipations approaching the rated maximum, separate anode and cathode resistors must be used to assist load sharing.

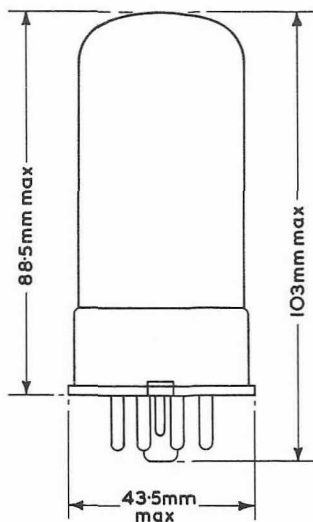
When combined fixed and cathode bias is used, the cathode bias portion should have a minimum value of 7.5V d.c. at the normal operating conditions and R_{g-k} max. = 100k Ω .

It is not recommended that fixed bias be used when the valve is used in a booster scanning circuit.

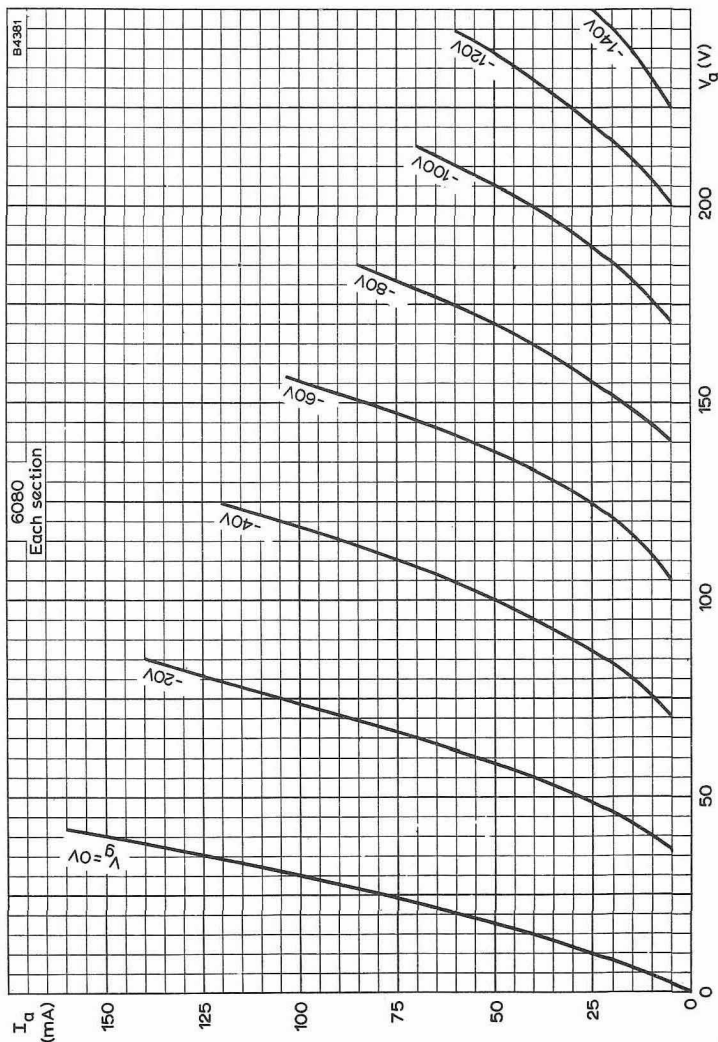
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Octal Base







ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH GRID VOLTAGE AS PARAMETER

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