SUBMINIATURE ELECTROMETER PENTODE

ME1403

Subminiature electrometer pentode with a grid current of 3×10^{-15}A.

FILAMENT

Suitable for d.c. operation only

V_f	1.25	V
I_f	8.2	mA

MOUNTING POSITION

Any

CAPACITANCES

C_{a-g1}	0.2	pF
C_{in}	3.0	pF
C_{out}	4.0	pF

CHARACTERISTICS (All voltages are with respect to the negative end of the filament)

Measured at $V_f = 1.25V$, $V_a = 10V$, $I_a = 5.0\mu A$, $V_{g1} = -2.5V$

	Min.	*Av.*	*Max.*	
V_{g2}	5.0	6.5	7.5	V
g_m	8.0	10.5	15	μA/V
r_a	—	10.5	—	MΩ
$\mu_{(g1-a)}$	80	110	—	
*I_{g1}	—	-3.0×10^{-15}	-8.0×10^{-15}	A
I_{g2}	1.5	2.2	3.0	μA
†V_{g1}(crossover)	—	−1.15	—	V

*The quoted grid current characteristics will only be obtained if the tube is operated in complete darkness.

†'Crossover' is the point at which the polarity of the grid current is reversed (measured at $V_f = 1.25V$, $V_a = 10V$, V_{g2} = the value which gives $I_a = 5\mu A$ when $V_{g1} = -2.5V$)

LIMITING VALUES

V_a max.	45	V
V_{g2} max.	45	V
I_k max.	180	μA
V_f limits	1.1 to 1.5	V

OPERATING NOTES

1. In order to avoid excessive drift of characteristics the filament voltage must be applied before the anode voltage.
2. To avoid contamination of the glass, the valve should not be removed from its protective envelope until it is fitted into the equipment.
3. Direct soldered connections to the leads of the valve must be at least 13mm from the seal and any bending of the valve leads must be at least 1.5mm from the seal.

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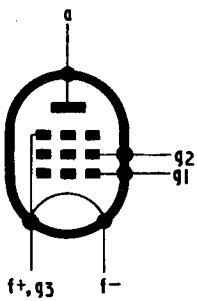
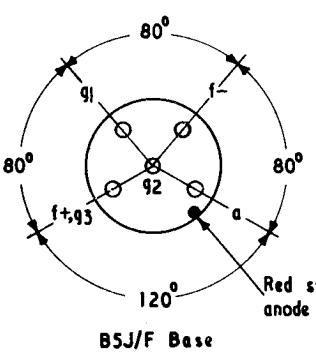
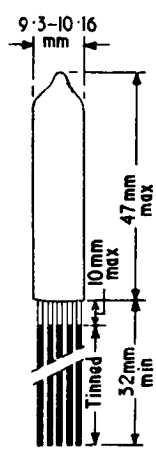
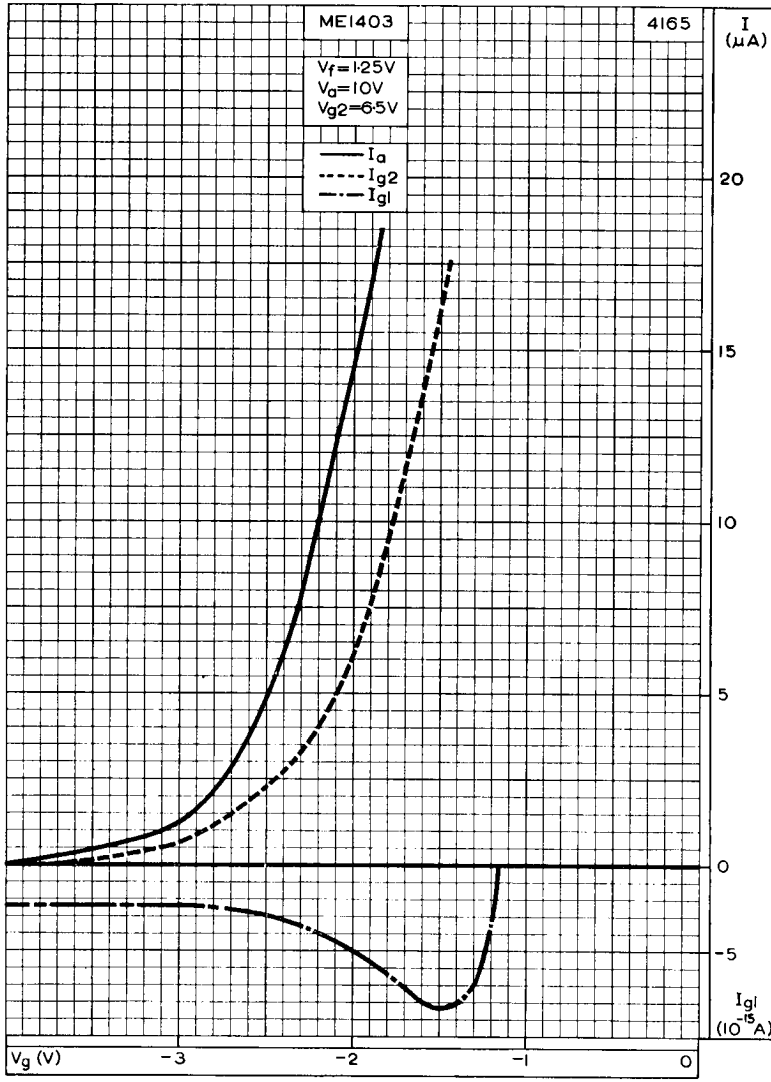




B5J/F Base





ANODE, SCREEN-GRID AND CONTROL-GRID CURRENTS PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = 10V$, $V_{g2} = 6.5V$

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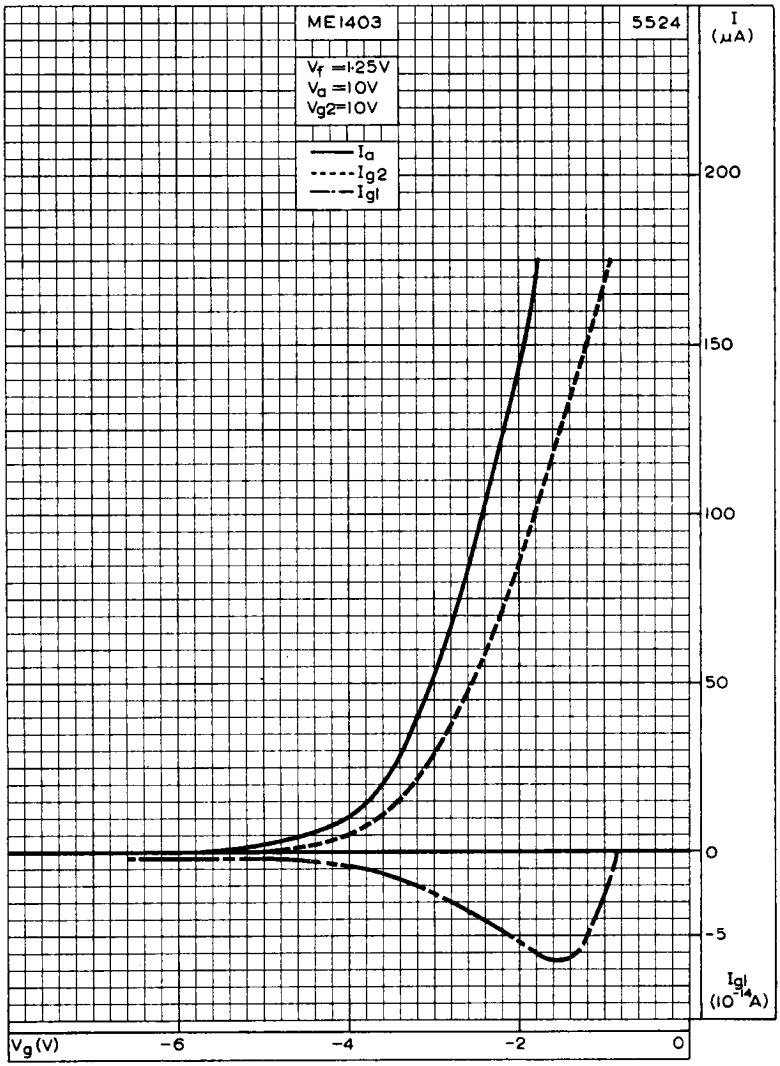
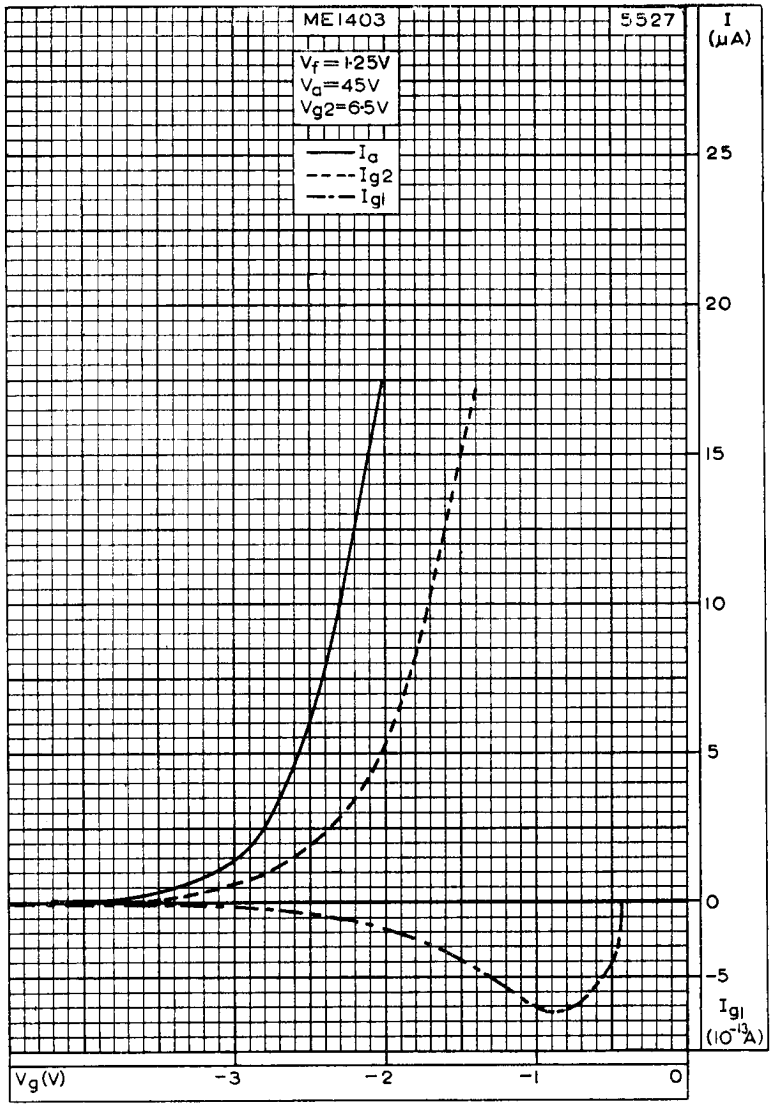
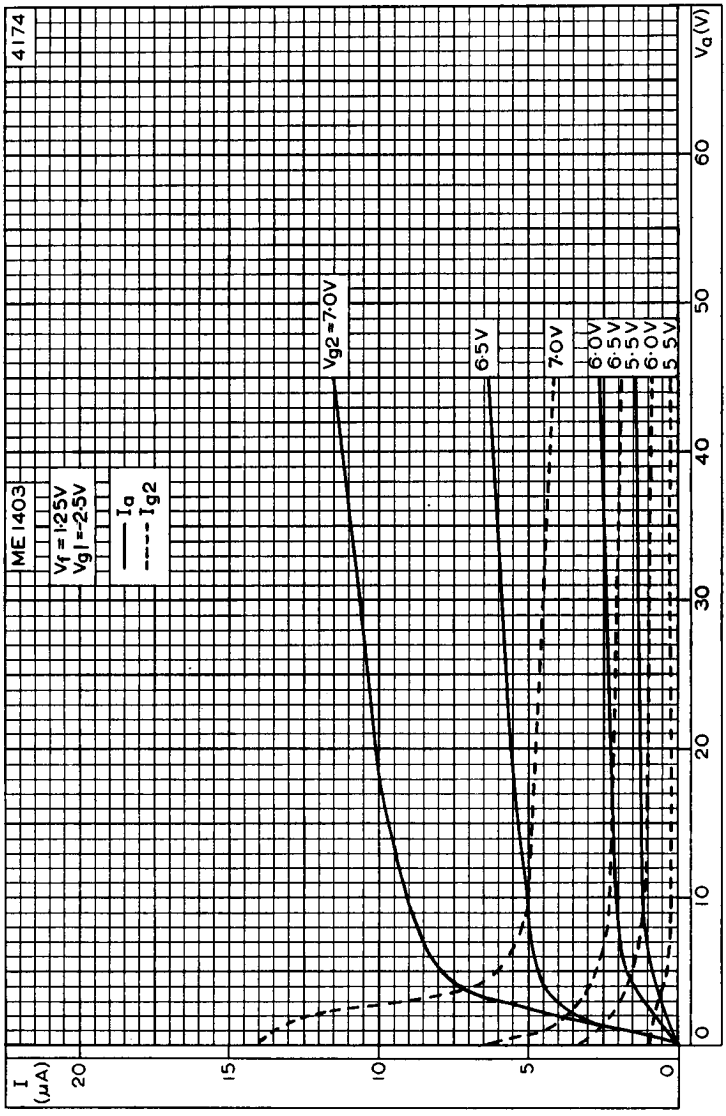


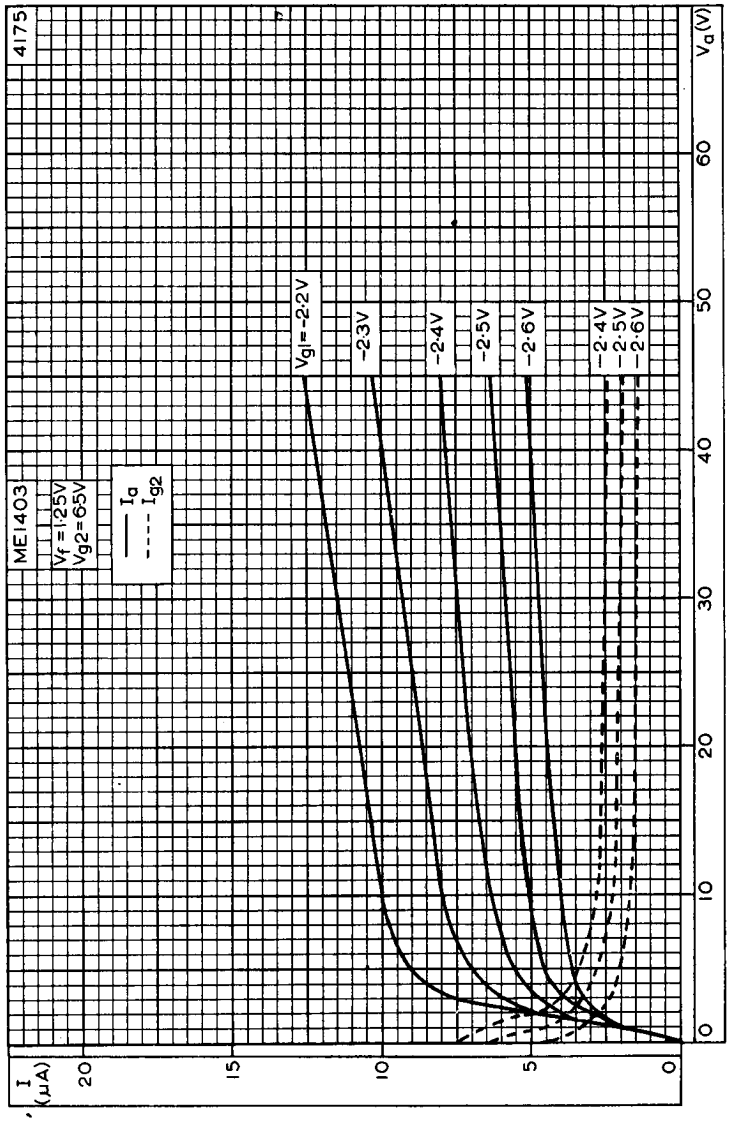
ANODE, SCREEN-GRID AND CONTROL-GRID CURRENTS PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = 10V$, $V_{g2} = 10V$



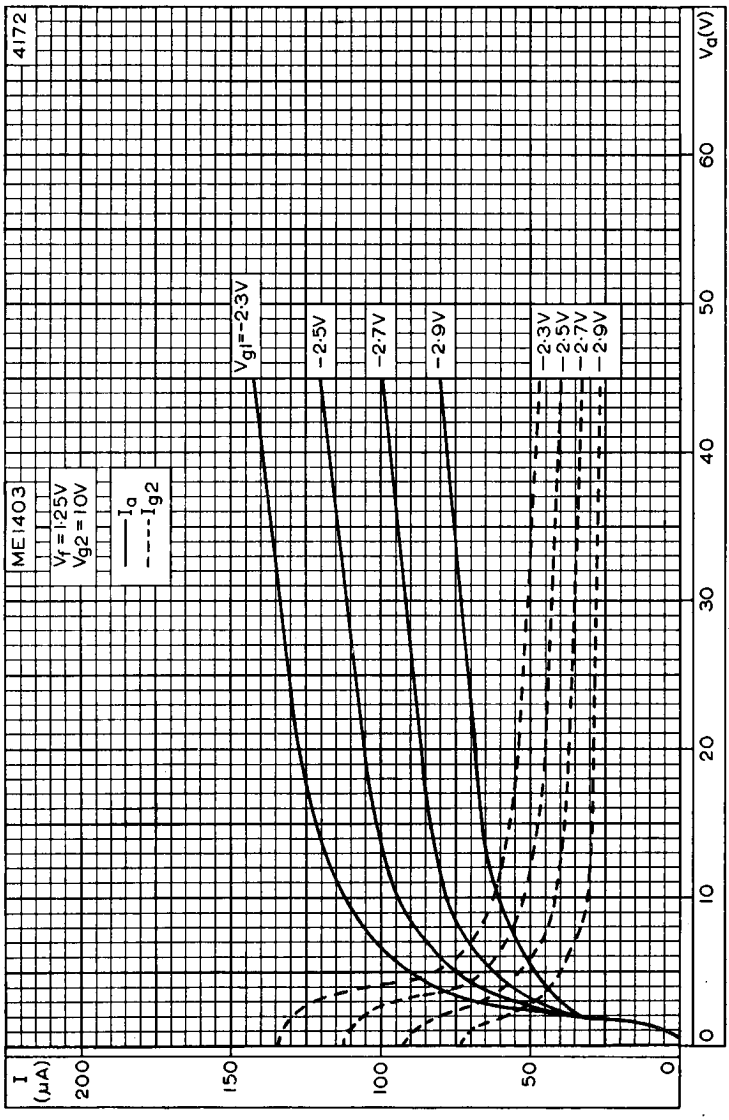
ANODE, SCREEN-GRID AND CONTROL-GRID CURRENTS PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = 45V$, $V_{g2} = 6.5V$



ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH SCREEN-GRID VOLTAGE AS PARAMETER



ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 6.5V$



ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. V_{g2} = 10V