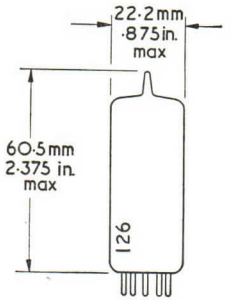
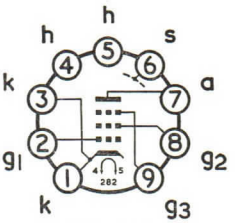


VARIABLE-MU R.F. PENTODE



B9A Base

GENERAL

This valve is a variable-mu R.F. pentode primarily intended for use in A.C. or A.C./D.C. television receivers.

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

RATINGS

Maximum Anode Dissipation	$P_{a(max)}$	2·5	W
Maximum Screen Grid Dissipation	$P_{g2(max)}$	0·65	W
Maximum Anode Voltage	$V_{a(max)}$	300	V
Maximum Screen Grid Voltage	$V_{g2(max)}$	300	V
Maximum Cathode Current	$I_{k(max)}$	15	mA
Maximum Heater to Cathode Voltage (DC)	$V_{h-k(max)}$	150*	V
Maximum Grid 1 to Cathode Resistance	$R_{g1-k(max)}$	3	MΩ
Maximum Heater to Cathode Resistance	$R_{h-k(max)}$	20	kΩ

* From cathode to higher potential heater pin.

INTER-ELECTRODE CAPACITANCES †

Grid to Earth	c_{in}	7·2	pF
Anode to Earth	c_{out}	3·7	pF
Grid 1 to Anode	c_{g1-a}	≤·007	pF
Grid 1 to Heater	c_{g1-h}	≤·15	pF

† Inter-electrode capacitance in fully shielded socket without can.

" Earth " denotes the remaining earthy potential electrodes, heater and shields joined to cathode.

TYPICAL OPERATION

Anode Voltage	V_a	250	250	V
Screen Grid Voltage	V_{g2}	100	250	V
Control Grid Voltage	V_{g1}	−2		V
Anode Current	I_a	10		mA
Screen Grid Current	I_{g2}	2·5		mA
Mutual Conductance	g_m	6		mA/V
Inner Amplification Factor	μ_{g1-g2}	25		
Anode Resistance ($\delta v_a/\delta i_a$)	r_a	0·5		MΩ
Grid Bias to give Mutual Conductance of 60 μA/V	V_{g1}		−35	V
Equivalent Grid Noise Resistance	R_{eq}	1·5		kΩ

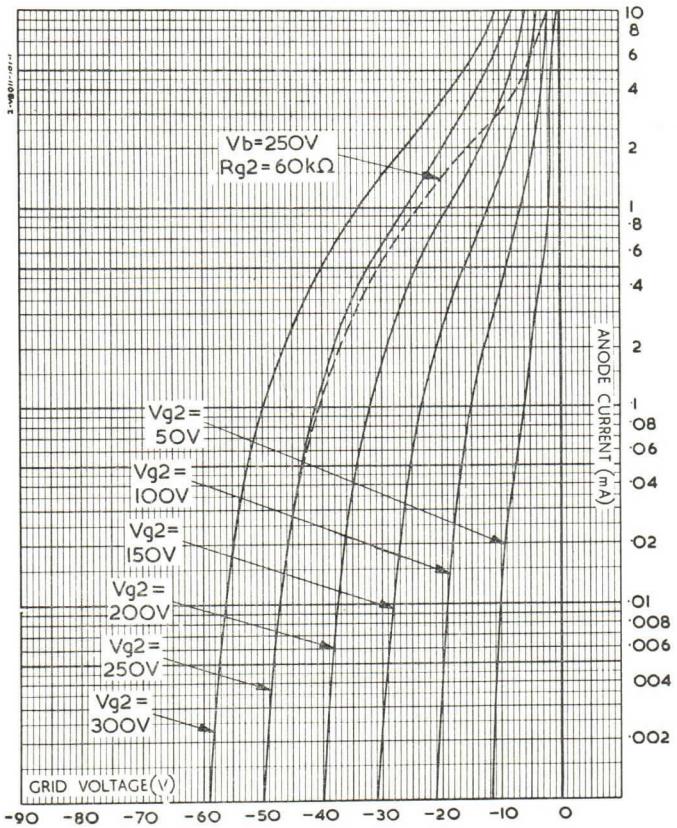
MOUNTING POSITION—Unrestricted.

APPROXIMATE WEIGHT

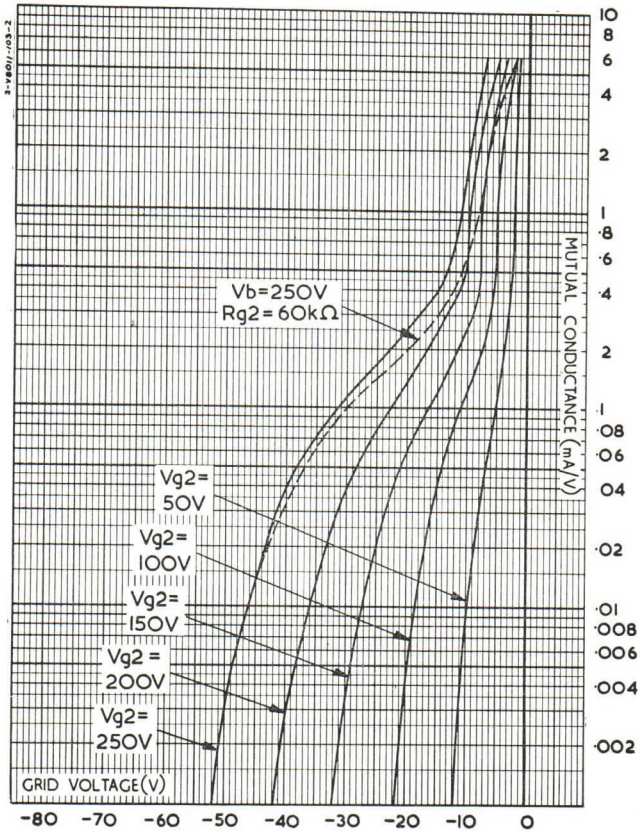
Net	0·5 oz
Packed	0·75 oz

THORN — AEI RADIO VALVES & TUBES LTD.

CHARACTERISTIC CURVES : I_a/V_{g1}
(V_a=250V, V_{g3}=0V, V_h=6.3V)



CHARACTERISTIC CURVES : g_m/V_{g1}
(V_a=250V, V_{g3}=0V, V_h=6.3V)




101-2
I_{g2}/V_{g2}
V_a=250V. V_{g3}=0V
V_{g1}=0V
-1V
-2V
-4V
-6V
-8V
-10V
-15V
-20V
-25V
-30V
R_{g2}=60kΩ
SCREEN GRID CURRENT (I_{g2}) mA
SCREEN GRID VOLTAGE (V_{g2}) V
0
50
100
150
200
250
1
2
3
4
5
6