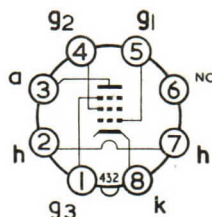


### OUTPUT PENTODE



I.O. Base

### GENERAL

This valve is a high slope output pentode designed for operation in A.C. operated or mobile equipment.

Heater Voltage	$V_h$	6.3	V
Heater Current	$I_h$	1.5	A

### RATINGS

Maximum Anode Dissipation	$P_{a(max)}$	25	W
Maximum Screen Grid Dissipation	$P_{g2(max)}$	8	W
Maximum Anode Supply Voltage	$V_{a(b)max}$	2	kV
Maximum Anode Voltage	$V_a(max)$	800	V
Maximum Screen Grid Supply Voltage	$V_{g2(b)max}$	800	V
Maximum Screen Grid Voltage	$V_{g2(max)}$	500	V
Maximum Heater to Cathode Voltage	$V_{h-k(max)}$	100	V
Maximum Cathode Current	$I_{k(max)}$	150	mA
Maximum Grid 1 to Cathode Resistance	$R_{g1-k(max)}$	500	k $\Omega$
Maximum Heater to Cathode Resistance	$R_{h-k(max)}$	20	k $\Omega$

### INTER-ELECTRODE CAPACITANCES

Output	$C_{out}$	8.4	pF
Input	$C_{in}$	15.2	pF
Anode to Grid 1	$C_{a-g1}$	<1.0	pF
Grid 1 to Heater	$C_{g1-h}$	<1.0	pF
Heater to Cathode	$C_{h-k}$	11	pF

\* Measured in fully shielded socket without can.

### CHARACTERISTICS

Anode Voltage	$V_a$	250	V
Screen Grid Voltage	$V_{g2}$	250	V
Anode Current	$I_a$	100	mA
Screen Grid Current	$I_{g2}$	15	mA
Control Grid Voltage	$V_{g1}$	-12.2	V
Mutual Conductance	$g_m$	11	mA/V
Anode Resistance ( $\delta V_a / \delta I_a$ )	$r_a$	15	k $\Omega$
Inner Amplification Factor	$\mu_{g1-g2}$	11	

## OPERATION AS CLASS A SINGLE VALVE AMPLIFIER

Anode Voltage	$V_a$	250	300	V
Screen Grid Voltage	$V_{g2}$	250	300	V
Suppressor Grid Voltage	$V_{g3}$	0	0	V
Cathode Resistor	$R_k$	106	190	$\Omega$
Anode Load Resistance	$R_a$	2	3.5	$k\Omega$
Anode Current (Zero signal)	$I_{a(o)}$	100	83	mA
Screen Grid Current (Zero signal)	$I_{g2(o)}$	15	13	mA
R.M.S. Input Voltage (for $P_{out} = 50mW$ )	$V_{in(r.m.s.)}$ ( $P_{out} = 50mW$ )	500	450	mV
R.M.S. Input Voltage	$V_{in(r.m.s.)}$	8	8.2	V
Power Output	* $P_{out}$	11	11	W
Total Distortion	* $D_{tot}$	10	10	%

## PUSH PULL OPERATION FOR TWO VALVES

(Fixed Bias)

Supply Voltage	$V_b$	375	400	V
Suppressor Grid Voltage	$V_{g3}$	0	0	V
Screen Grid Resistor	$R_{g2}$	600†	800†	$\Omega$
Control Grid Voltage	$V_{g1}$	-33	-36	V
Anode Load Resistance	$R_{a-a}$	3.5	3.5	$k\Omega$
Total Anode Current (Zero signal)	$I_{a(o)tot}$	60	60	mA
Total Screen Grid Current (Zero signal)	$I_{g2(o)tot}$	9.4	9	mA
R.M.S. Input Voltage	$V_{in(g1-g1)r.m.s.}$	46.7	50	V
Power Output	$P_{out}$	48	54	W
Total Distortion	$D_{tot}$	2.8	1.6	%
Total Anode Current (Maximum Signal)	$I_{a(max.sig.)tot}$	215	221	mA
Total Screen Grid Current (Maximum Signal)	$I_{g2(max.sig.)tot}$	47	46	mA

\* Under Speech and Music conditions.

† Screen-grid resistor common to both valves.

