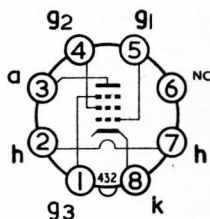


OUTPUT PENTODE



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 Ω
Maximum Heater to Cathode Resistance	$R_{h-k}(\max)$	20	k Ω

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 Ω
Inner Amplification Factor	μ_{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	Ω
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†	Ω
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.

