

ES1102
RADIATION COOLED TRIODE
TENTATIVE

GENERAL

The ES1102 is a directly heated power triode intended for use in Class AB₁ or AB₂ Push Pull Amplifiers having a maximum power output of 300 watts per pair of valves. It has a maximum anode dissipation of 100 watts.

RATING

Filament Voltage (volts)	V_f	6.0
Filament Current (amps)	I_f	2.7
Maximum Anode Voltage (volts)	$V_a(\text{max})$	1250
Maximum Mean Cathode Current (mA)	$I_{k(\text{av})\text{max}}$	250
Maximum Anode Dissipation (watts)	$P_a(\text{max})$	100
Mutual Conductance (mA/V)	g_m	3.9*
Amplification Factor	μ	5.5*
Anode Impedance (kilohms)	r_a	1.41*

* Measured at $V_a=1\text{kV}$; $I_a=100\text{mA}$.

INTER-ELECTRODE CAPACITANCES (pF)

Anode/Grid	c_{a-g}	15.7
Anode/Filament	c_{a-f}	10.8
Grid/Filament	c_{g-f}	15.8

DIMENSIONS

Maximum Overall Length	(mm)	192
Maximum Seated Height	(mm)	182
Maximum Diameter	(mm)	65
Approximate Nett Weight	(lbs)	1
Approximate Packed Weight	(lbs)	2

ES1102
RADIATION COOLED TRIODE
TENTATIVE

MOUNTING POSITION—Vertical, base downwards.

TYPICAL OPERATION—Push-Pull. Values per valve.

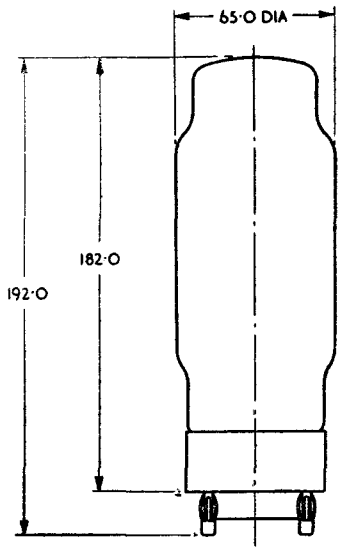
		Class AB ₁		Class AB ₂	
Anode Voltage (maximum signal) (kV)	$V_a(\text{max sig})$	1.0	1.25	1.0	1.25
Anode Current (no signal) (mA)	$I_a(o)$	50	50	50	50
Anode Current (maximum signal) (mA)	$I_a(\text{max sig})$	165	150	150	182
Anode Dissipation (no signal) (watts)	$P_a(o)$	55	70	55	55
Anode Dissipation (maximum signal) (watts)	$P_a(\text{max sig})$	53	100	50	80
Grid Bias (volts)	V_g	—200	—225	—200	—225
Input Voltage (grid to grid) (peak) (volts)	$V_{in(g-g)pk}$	400	450	500	560
Grid Current (mA)	I_g	0	0	7.5	10
Anode Load (Anode to Anode) (kilohms)	R_{a-a}	4	8	8	8
Power Output (total)(watts)	P_{out}	125	175	200	300
Distortion (%)		4	5	6	6

The power supply should have an impedance not greater than 400 ohms.

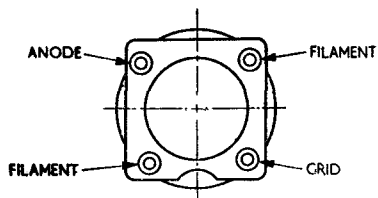
Under Class AB₂ conditions the anode dissipation rises to a maximum at approximately one half of full output.



ES1102
RADIATION COOLED TRIODE
TENTATIVE



BASE—L4



All dimensions in mm.



ES1102
RADIATION COOLED TRIODE
TENTATIVE

CHARACTERISTIC CURVES: I_a/V_a

