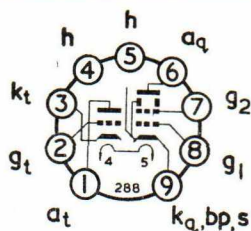


TRIODE BEAM TETRODE



B9A Base

GENERAL

This valve is a triode beam tetrode intended for use in the video output stages of A.C./D.C. mains television receivers. The characteristics of the triode section are identical to those of the 6/30L2 triode.

Heater Current	I_h	0.3	A
Heater Voltage	V_h	10	V

RATINGS

		Triode	Tetrode	
Maximum Anode Dissipation	$P_a(\text{max})$	1.5	2.5	W
Maximum Screen Grid Dissipation	$P_{g2}(\text{max})$	—	1.3	W
Maximum Anode Voltage	$V_a(\text{max})$	250	250	V
Maximum Screen Grid Voltage	$V_{g2}(\text{max})$	—	250	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h-k}(\text{r.m.s.})_{\text{max}}$	150*	150*	V

* Measured with respect to the higher potential heater pin.

INTER-ELECTRODE CAPACITANCES

		†	‡	§	
Grid 1 to Earth	C_{g1-E}	8.1	8.4	9.5	pF
Anode Tetrode to Earth	C_{aq-E}	2.7	3.0	4.1	pF
Grid 1 to Anode Tetrode	C_{g1-aq}	0.04	0.05	0.08	pF
Grid Triode to Earth	C_{gt-E}	2.2	2.4	3.2	pF
Anode Triode to Earth	C_{at-E}	1.9	2.1	2.8	pF
Grid Triode to Anode Triode	C_{gt-at}	2.4	2.5	2.8	pF
Anode Triode to Anode Tetrode	C_{at-aq}	0.012	0.017	0.019	pF
Grid Triode to Grid 1	C_{gt-g1}	0.004	0.007	0.011	pF
Anode Triode to Grid 1	C_{at-g1}	0.01	0.02	0.03	pF
Anode Tetrode to Grid Triode	C_{aq-gt}	0.004	0.007	0.01	pF

† In fully shielded socket without can.

‡ With holder capacitance balanced out. (Holder as below.)

§ Total capacitance including B9A nylon phenolic holder without skirt or radial shield. (AEI holder type VH19/902.)

"Earth" denotes the electrodes of any second valve section and the remaining earthy potential electrodes of the section under measurement, heater and shields joined to cathode.

CHARACTERISTICS

		Triode	Tetrode	
Anode Voltage	V_a	150	180	V
Screen Grid Voltage	V_{g2}	—	180	V
Anode Current	I_a	10	10	mA
Mutual Conductance	g_m	3.7	12.5	mA/V
Amplification Factor	μ	18	—	

TYPICAL OPERATION—Video Amplifier

The stage should be designed to allow for valve spread and deterioration during life in addition to component variations. Values of peak anode current available for a new average valve and at the assumed end of life point for any valve are as follows:

		ϕ		
Anode Voltage	V_a	70	60	V
Screen Grid Voltage	V_{g2}	180	180	V
Grid Bias Voltage	V_{g1}	-1	-1	V
Anode Current	I_a	40	25	mA

ϕ Average New Valve.

|| Assumed End of Life Condition.

MOUNTING POSITION—Unrestricted

