

12AJ7 is a 9-pin miniature type triode-heptode designed for use as a frequency converter, IF and RF amplifier of transformer-less AM/FM receivers.

BASE E9-1 Small Button Noval 9-Pin

MOUNTING POSITION—Any

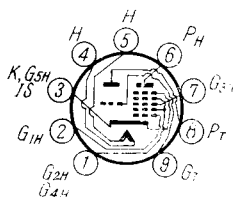
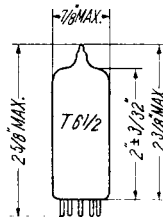
HEATER

Voltage12.6 (V)

Current0.15 (A)

DIRECT INTERELECTRODE CAPACITANCES

(Without Shield)	Triode Unit	Heptode Unit	
Grid No. 1 to Plate.....	1.0	0.006 max.	(pF)
Input.....	2.6	4.8	(pF)
Output.....	2.1	7.9	(pF)
Grid No. 3 to All.....	—	6.0	(pF)
Plate to Plate.....	0.2		(pF)



MAXIMUM RATINGS (Design Center Values)				TYPICAL OPERATION		
	Triode Unit	Heptode Unit	(V)	Heptode Unit (Con-verter)	RF/IF Amp.	Triode Unit (Class A ₁ Amp.)
Plate Voltage	250	240	(V)	Plate Voltage	100	100
Grid No. 2 Supply Voltage	—	125	(V)	Grid No. 3 Voltage	0	—
Plate Dissipation	0.8	1.7	(W)	Grid No. 2 & No. 4 Voltage	63	60
Grid No. 2 Dissipation	—	1.0	(W)	Grid No. 1 Voltage	—1.1	—1.1
Total Cathode Current	6.5	12.5	(mA)	Grid No. 3 & Triode Grid Resistor	47	—
Peak Heater—Cathode Voltage				Plate Current	1.7	3.4
Heater negative with respect to cathode		100	(V)	Grid No. 3+Triode Grid Current	115	—
Heater positive with respect to cathode		100	(V)	Grid No. 2+No. 4 Current	3.7	2.2
Grid No. 1 Circuit Resistance	3.0	3.0	(MΩ)	Transconductance	—	2,000
				Conversion Trans-conductance	620	—
				Plate Resistance (Approx.)	800	450
				Amplification Factor	—	—
				Grid No. 1 Voltage (Approx.)	—	22
				$G_m = 20 \mu\text{U}$	—	—16.5
				$G_o = 6.2 \mu\text{U}$	—14.5	—

