

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

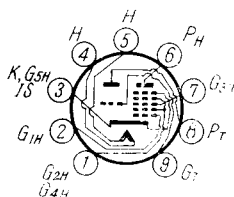
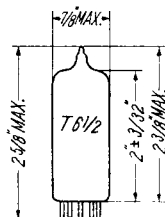
HEATER

Voltage 12.6 (V)

Current 0.15 (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		Heptode Unit (Con-verter)	RF/IF Amp.	Triode Unit (Class A1) Amp.
Plate Voltage	250	240	(V)	Plate Voltage	100	100 (V)
Grid No. 2 Supply Voltage	—	125	(V)	Grid No. 3 Voltage	0	(V)
Plate Dissipation	0.8	1.7	(W)	Grid No. 2 & No. 4 Voltage	63	60 (V)
Grid No. 2 Dissipation	—	1.0	(W)	Grid No. 1 Voltage	—1.1	—1.1 0 (V)
Total Cathode Current	6.5	12.5	(mA)	Grid No. 3 & Triode Grid Resistor	47	— (kΩ)
Peak Heater—Cathode Voltage				Plate Current	1.7	3.4 13.5 (mA)
Heater negative with respect to cathode		100	(V)	Grid No. 3+Triode Grid Current	115	(μA)
Heater positive with respect to cathode		100	(V)	Grid No. 2+No. 4 Current	3.7	2.2 (mA)
Grid No. 1 Circuit Resistance	3.0	3.0	(MΩ)	Transconductance	2,000	3,700 (μS)
				Conversion Trans-conductance	620	— (μS)
				Plate Resistance (Approx.)	800	450 (kΩ)
				Amplification Factor	—	22
				Grid No. 1 Voltage (Approx.)	—	— (V)
				$G_m = 20 \mu S$	—	— (V)
				$G_r = 6.2 \mu S$	—14.5	— (V)

— 240 —

