



## TAD – 12AT7/ECC81 High Performance High-Mu Twin Triode

The TAD™ 12AT7/ECC81 is a miniature, high-mu twin triode for use in reverb drivers or phase inverter stages of guitar and bass amplifiers. The tone is defined and rich of harmonics. Wonderful rich and deep sounding reverb is achieved. Also used as input stages for audio frequency amplifiers in HiFi and Hi-End Applications.

The TAD™ 12AT7/ECC81 low noise tube is selected for best symmetry within 5%. Used also in the great Brocksieper EARMAX / EARMAX PRO headphone amp and other High-End Audio amplifiers.

### Characteristics of a bogey tube:

Electrical		
Heater:	Series	Parallel
Voltage (AC or DC)	12.6V +/-1.0	6.3+/-0.5
Current	0.15	0.3
Heating	Indirect	
Cathode-to-heater potential, max.	100 V	
Direct interelectrode capacitances, max.***		
Grid to plate	1.5 pF	
Grid to cathode	2.2 pF	
Grid to heater	1.4 pF	
Plate to cathode	0.2 pF	
Mechanical		
Operating Position	Any	
Base	E9-1, Small Buton 9 Pin	
Dimensions:		
Height	56 mm	
Seated height	49 mm	
Diameter	22.5 mm	
Cooling	conventional	
Approximate net weight	13 g	

\*\*\*Without external shielding, nominal values

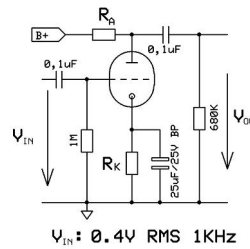
### AF Power Amplifier

Maximum ratings	
DC plate voltage	330 V
Positive DC Grid Voltage	0 V
Negative DC Grid Voltage	-55 V
Plate dissipation	2.5 W
Bulb temperature (surface hottest point)	190°C
Cathode Current	15 mA

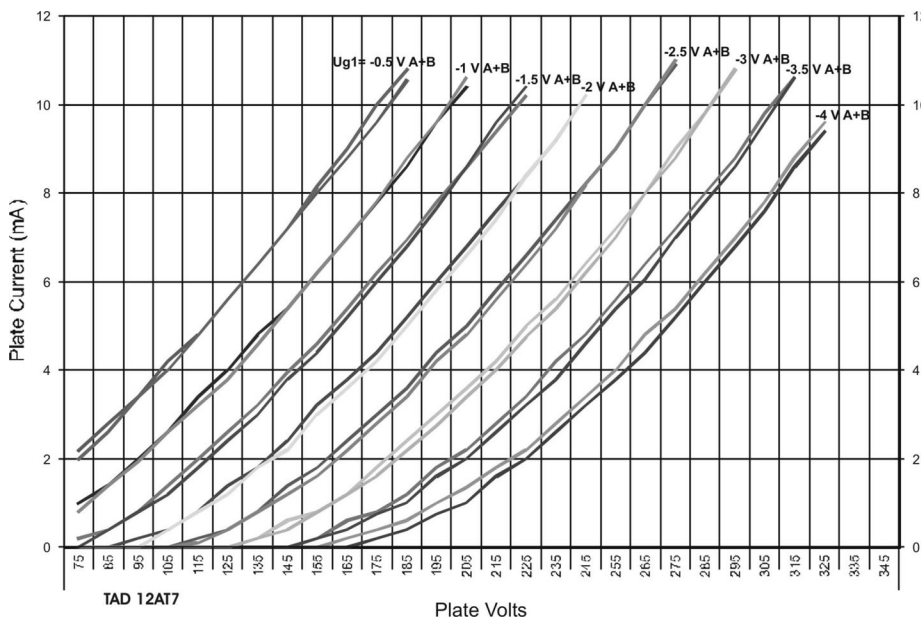
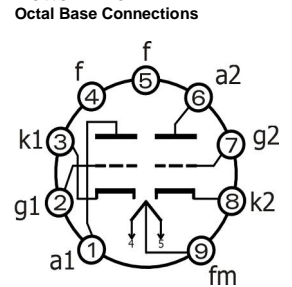
### RT002, 12AT7/ECC81

B+ / V	R <sub>A</sub> / kΩ	R <sub>K</sub> / kΩ	V <sub>Out</sub> / V <sub>RMS</sub>	V <sub>Out</sub> / V <sub>IN</sub>	THD / %	I <sub>A</sub> / mA
200	47	1,20	11,8	29,5	1,9	1,5
250	47	1,20	12,1	30,3	1,5	1,9
300	47	1,20	12,3	30,8	1,3	2,4
350	47	1,20	12,4	31,0	1,1	2,8
400	47	1,20	12,6	31,5	0,9	3,2
200	100	2,20	12,8	32,0	1,9	0,9
250	100	2,20	13,0	32,5	1,6	1,1
300	100	2,20	13,1	32,8	1,3	1,3
350	100	2,20	13,2	33,0	1,1	1,6
400	100	2,20	13,3	33,3	0,9	1,8
200	220	3,90	13,0	32,5	2,1	0,5
250	220	3,90	13,2	33,0	1,6	0,6
300	220	3,90	13,4	33,5	1,4	0,7
350	220	3,90	13,5	33,8	1,1	0,8
400	220	3,90	13,6	34,0	1,0	0,9

### Test arrangement:



### Bottom View



### Outline View

