

## Preamp Tube Information

US (RETMA) Designation

Mullard/Phillips Designation

Military/Industrial/Commercial Designation

Amplification Factor Mu ( $\mu$ )

Avg. Transconductance (Gm)  $\mu$ S

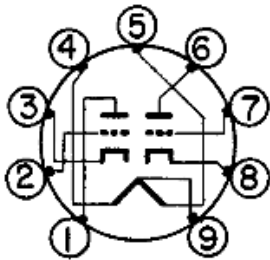
Typical Plate Current (Ip) ma.

Max Plate Dissipation (Watts)

12AX7	12AT7	12AY7	12AU7
ECC83	ECC81		ECC82
7025		6072A	
100	60	40	17-20
1250-1600	4000-5500	1750	2200-3100
0.5-1.2	3.7	3	10.5-11.8
1	2.5	1.5	2.75

RETMA = Radio Electronics Television Manufacturers Association

### BASING DIAGRAM

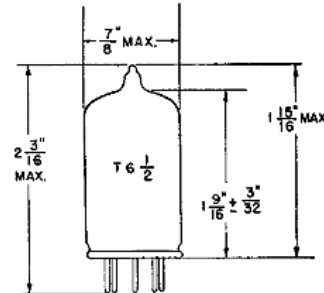


RETMA 9A

### TERMINAL CONNECTIONS

- Pin 1—Plate (Section 2)
- Pin 2—Grid (Section 2)
- Pin 3—Cathode (Section 2)
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Plate (Section 1)
- Pin 7—Grid (Section 1)
- Pin 8—Cathode (Section 1)
- Pin 9—Heater Center-Tap

### PHYSICAL DIMENSIONS



RETMA 6-2

Scroll Down for a comparison of  
12AX7 / ECC83 / 7025 Tubes  
currently being produced.



### 12AX7 Comparison - Tubes in Current Production

Brand	Designation	COO	Factory	Subjective Ratings 1-10				Subjective Ratings 0 (bad) - 5 good			Notes
				Gain	Lows	Mids	Highs	Microphonics	Noise	Dynamics	
Mullard	12AX7/ECC83	Russia	Xpo-Pul - Saratov	10	10	10	10	5	5	4	
Tung Sol	12AX7	Russia	Xpo-Pul - Saratov	8.3	9	8	8	5	4	5	
JJ	ECC83-S	Czech.	Tesla (new), Prague	6.3	5	7	7	3	4	4	
JJ-Gold	ECC83-S-GLD	Czech.	Tesla (new), Prague	7.7	7	8	8				
JJ- Long Plate Spiral	ECC803-S	Czech.	Tesla (new), Prague	6.3	5	7	7	5			
JJ-Gold-Long Plate	ECC803-GLD	Czech.	Tesla (new), Prague	8.3	8	9	8	5			
Sovtek	12AX7-WA	Russia	Xpo-Pul - Saratov	1	1	1	1	5	2	2	
Sovtek	12AX7-WB	Russia	Xpo-Pul - Saratov	8	9	8	7	5	2	2	
Sovtek	12AX7-LPS	Russia	Xpo-Pul - Saratov	5.7	5	6	6	3	4	5	
Electro-Harmonix	12AX7EH	Russia	Xpo-Pul - Saratov	7.7	7	8	8	5	3	4	
Tube Amp Doctor	12AX7A-C	China	Shugang	5.7	5	6	6				
Tube Amp Doctor	ECC83-WA	China	Shugang	5.7	7	6	4				
Tube Amp Doctor	7025-WA	China	Shugang	5	6	5	4				
Ruby	12AX7A-C5	China	Shugang	5.7	5	6	6				
Ruby	12AX7ACZ	Czech.	Tesla (new), Prague	6.3	5	7	7	3	4	4	(JJ ECC83S)
Fender	12AX7/7025 Russian	Russia	Xpo-Pul - Saratov								(Sovtek 12AX7WC)
Groove Tubes	GT12AX7A	China	Shugang	4.7	4	5	5				
Groove Tubes	GT12AX7C	China	Shugang								
Shugang	12AX7	China	Shugang	4.7	4	5	5				
Shugang	12AX7B	China	Shugang	5.7	5	6	6		5		
Sovtek	5751	Russia	Xpo-Pul - Saratov	5.3	6	6	4				

Subjective ratings were obtained from various sources, including reviews by Antique Electronics Supply, and the Tubestore. There are more varieties but this covers most available 12AX7 type tubes that have ratings I could find.