

High-Mu Twin-Triode Type 12AT7

The 12AT7 is a 9-pin miniature twin-triode designed for use in compact equipment as a grounded-grid amplifier or frequency converter in the FM and television broadcast bands. Each triode unit is independent of the other except for a common heater. The center-tapped heater permits use on either 6.3 volt or series type heater circuits.

GENERAL DATA

Electrical:

Cathode	Coated Unipotential	
Heater:	Series	Parallel
Voltage	12.6	6.3 AC or DC Volts
Current	0.15	0.3 Amperes

Direct Interelectrode Capacitances:

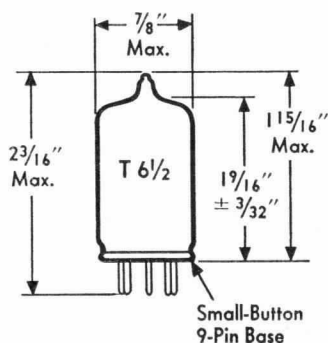
	Unshielded	Shielded*	
Grid to Plate (Each Unit) ...	1.5	1.5	$\mu\mu\text{f}$
Input (Each Unit)	2.2	2.2	$\mu\mu\text{f}$
Output (Unit 1)	0.5	1.2	$\mu\mu\text{f}$
Output (Unit 2)	0.4	1.5	$\mu\mu\text{f}$
Heater to Cathode	2.4	2.4	$\mu\mu\text{f}$
Grounded-Grid Operation: Unshielded Shielded**			
Plate to Cathode (Each Unit) 0.2	0.2	$\mu\mu\text{f}$	
Input (Each Unit)	4.6	4.6	$\mu\mu\text{f}$
Output (Each Unit)	1.8	2.6	$\mu\mu\text{f}$

* With external shield 315 connected to cathode of section under test.

** With external shield 315 connected to grid of section under test.

Mechanical:

Bulb	T-6 $\frac{1}{2}$
Base	Small-Button Noval 9-Pin
Basing	9A
Mounting Position	Any



CE-A554

AMPLIFIER — CLASS A₁

Each Unit

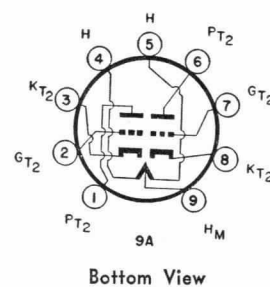
Maximum Ratings

Design-Center Values

Plate Voltage	300 max.	Volts
Plate Dissipation	2.5 max.	Watts
Peak Heater-Cathode Voltage:		
Heater Positive or Negative with Respect to Cathode	90 max.	Volts
Grid Voltage	-50 max.	Volts

Characteristics and Typical Operation

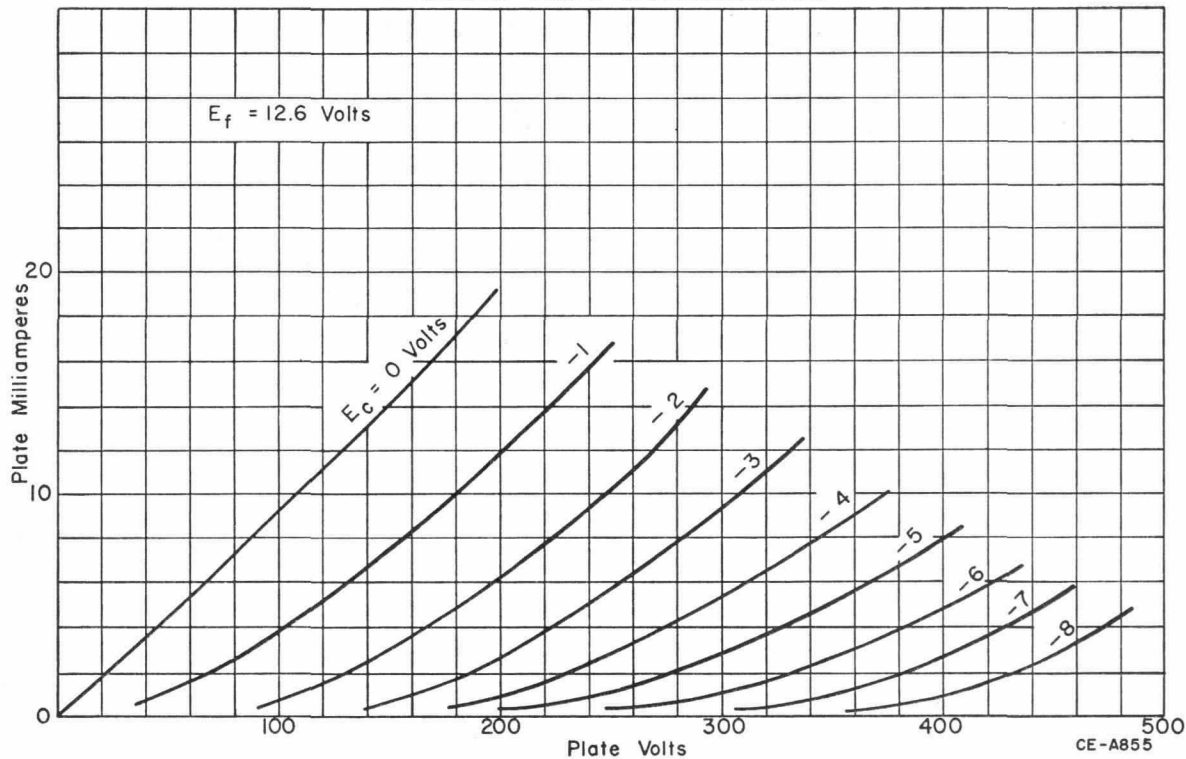
Plate Voltage	100	250	Volts
Cathode Bias Resistor	270	200	Ohms
Plate Current	3.7	10	Ma.
Plate Resistance	15000	10900	Ohms
Amplification Factor	60	60	
Transconductance	4000	5500	μmhos
Grid Voltage (Approx.) for $I_b = 10 \mu\text{amp}$	-5	-12	Volts



Bottom View

YOU CAN BE
SURE ... IF IT'S **Westinghouse**

AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS

