

Type 6681/12AX7 is designed specifically for use in mobile communications equipment. The 6681/12AX7 may be operated without serious degradation under normal variations in supply voltage as encountered with automotive electrical systems. Also consistent with the requirements of the equipment the tube is capable of withstanding appreciable on-off cycling.

MECHANICAL DATA

Bulb	T-6 $\frac{1}{2}$
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9A
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	Series/Parallel		
Heater Voltage ¹	12.6/6.3 Volts		
Heater Current	150/300 Ma		
Heater-Cathode Voltage (Design Maximum Values)			
Heater Negative with Respect to Cathode			
Total DC and Peak	200 Volts	Max.	
Heater Positive with Respect to Cathode			
DC	100 Volts	Max.	
Total DC and Peak	200 Volts	Max.	

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

	Section 1 ²	Section 2 ²
Grid to Plate	1.7	1.7 μmf
Input (g to h+k)	1.6	1.6 μmf
Output (p to h+k)	0.46	0.34 μmf

RATINGS (Design Maximum Values) Each Section

Plate Voltage	330 Volts	Max.
Plate Dissipation	1.1 Watt	Max.
Positive Grid Voltage	0 Volts	Max.
Negative Grid Voltage	55 Volts	Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier — Each Section

Plate Voltage	100	250 Volts
Grid Voltage	-1	-2 Volts
Plate Current	0.5	1.2 Ma
Plate Resistance	80,000	62,500 Ohms
Transconductance	1250	1600 μmhos
Amplification Factor	100	100

SPECIAL TESTS AND RATINGS

Heater-Cycling Life Test

Statistical sample operated for 2000 cycles minimum to evaluate and control heater-cathode defects. Conditions of test include $E_f = 15.0$ volts (series-heater connection) cycled for one minute on and one minute off, $E_b + E_c = 0$ volts and $E_{hk} = 135$ volts with heater positive with respect to cathode.

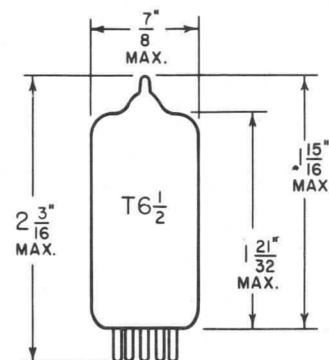
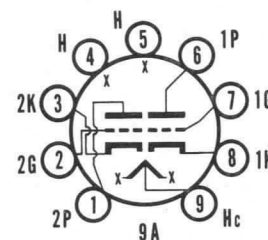
NOTES:

- When operated from automotive electrical systems the heater may be subjected to voltage variations as great as ± 20 percent. Although such extremes in heater voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.
- Section No. 1 connects to Pins 6, 7 and 8. Section No. 2 connects to Pins 1, 2 and 3.

QUICK REFERENCE DATA

Sylvania Type 6681/12AX7 is designed specifically for mobile operation. It is a T-6 $\frac{1}{2}$ high mu duo triode intended primarily for use as an audio amplifier or phase inverter.

Type 6681/12AX7 possesses electrical characteristics essentially equivalent to Type 12AX7.



SYLVANIA ELECTRONIC TUBES

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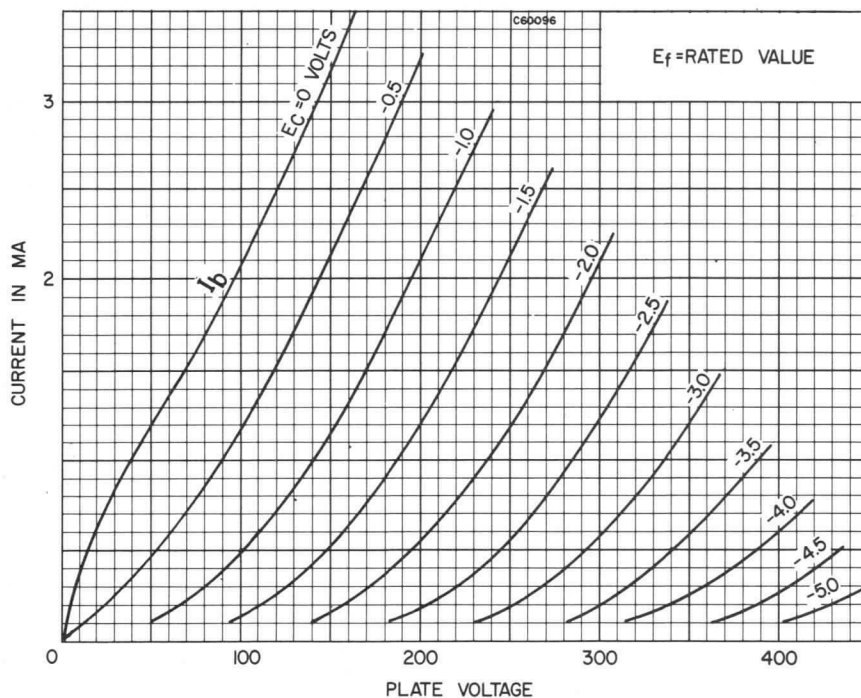
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AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

