

## MECHANICAL DATA

|                   |                                                                                        |
|-------------------|----------------------------------------------------------------------------------------|
| Bulb              | T-9                                                                                    |
| Base              | B8-6, Intermediate Shell Octal 8-Pin or<br>B8-58, Short Intermediate Shell Octal 8-Pin |
| Outline           | 9-11 or 9-41                                                                           |
| Basing            | 8BD                                                                                    |
| Cathode           | Coated Unipotential                                                                    |
| Mounting Position | Any                                                                                    |

## ELECTRICAL DATA<sup>1</sup>

### HEATER CHARACTERISTICS

|                                                              | 6SN7GT | 12SN7GT        |
|--------------------------------------------------------------|--------|----------------|
| Heater Voltage                                               | 6.3    | 12.6 Volts     |
| Heater Current                                               | 600    | 300 Ma         |
| Heater-Cathode Voltage<br>(Design Center Values)             |        |                |
| Heater Negative with Respect to Cathode<br>Total DC and Peak | 200    | 200 Volts Max. |
| Heater Positive with Respect to Cathode<br>DC                | 100    | 100 Volts Max. |
| Total DC and Peak                                            | 200    | 200 Volts Max. |

### DIRECT INTERELECTRODE CAPACITANCES (Unshielded — approx.)

|               | Section 1 <sup>2</sup> | Section 2         |
|---------------|------------------------|-------------------|
| Grid to Plate | 3.8                    | 4.0 $\mu\text{f}$ |
| Input         | 2.8                    | 3.0 $\mu\text{f}$ |
| Output        | 0.8                    | 1.2 $\mu\text{f}$ |

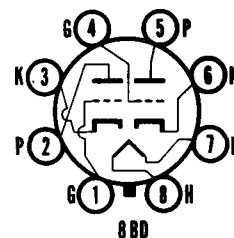
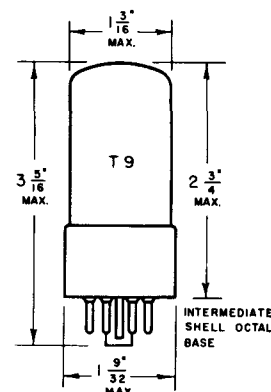
### RATINGS — Each Section (Design Center Values — Except as Noted)

|                                            | Class A <sub>1</sub><br>Amplifier | Vertical <sup>3</sup><br>Deflection<br>Amplifier |
|--------------------------------------------|-----------------------------------|--------------------------------------------------|
| Plate Voltage                              | 300                               | 300 Volts Max.                                   |
| Peak Positive Plate<br>Voltage (Abs. Max.) |                                   | 1200 Volts Max.                                  |
| Plate Dissipation                          |                                   |                                                  |
| Each Plate                                 | 3.5                               | 3.5 Watts Max.                                   |
| Both Plates                                | 5.0                               | 5.0 Watts Max.                                   |
| Peak Negative Grid Voltage                 |                                   | 250 Volts Max.                                   |
| Cathode Current                            | 20                                | 20 Ma Max.                                       |
| Peak Cathode Current                       |                                   | 70 Ma Max.                                       |
| Grid Circuit Resistance                    | 1.0                               | Megohm Max.                                      |
| Cathode Bias                               |                                   | 2.2 Megohms Max.                                 |

|                            | Vertical <sup>3</sup><br>Deflection<br>Oscillator | Horizontal <sup>3</sup><br>Deflection<br>Oscillator |
|----------------------------|---------------------------------------------------|-----------------------------------------------------|
| Plate Voltage              | 300                                               | 300 Volts Max.                                      |
| Plate Dissipation          |                                                   |                                                     |
| Each Plate                 | 3.5                                               | 3.5 Watts Max.                                      |
| Both Plates                | 5.0                                               | 5.0 Watts Max.                                      |
| Peak Negative Grid Voltage | 400                                               | 600 Volts Max.                                      |
| Average Cathode Current    | 20                                                | 20 Ma Max.                                          |
| Peak Cathode Current       | 70                                                | 300 Ma Max.                                         |
| Grid Circuit Resistance    | 2.2                                               | 2.2 Megohms Max.                                    |

## QUICK REFERENCE DATA

The 6SN7GT is a medium mu double triode intended for use as a resistance coupled amplifier, or combined vertical oscillator and vertical deflection amplifier in television receivers. Except for heater characteristics, the 6SN7GT is identical to the 12SN7GT.



SYLVANIA ELECTRIC  
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## CHARACTERISTICS AND TYPICAL OPERATION

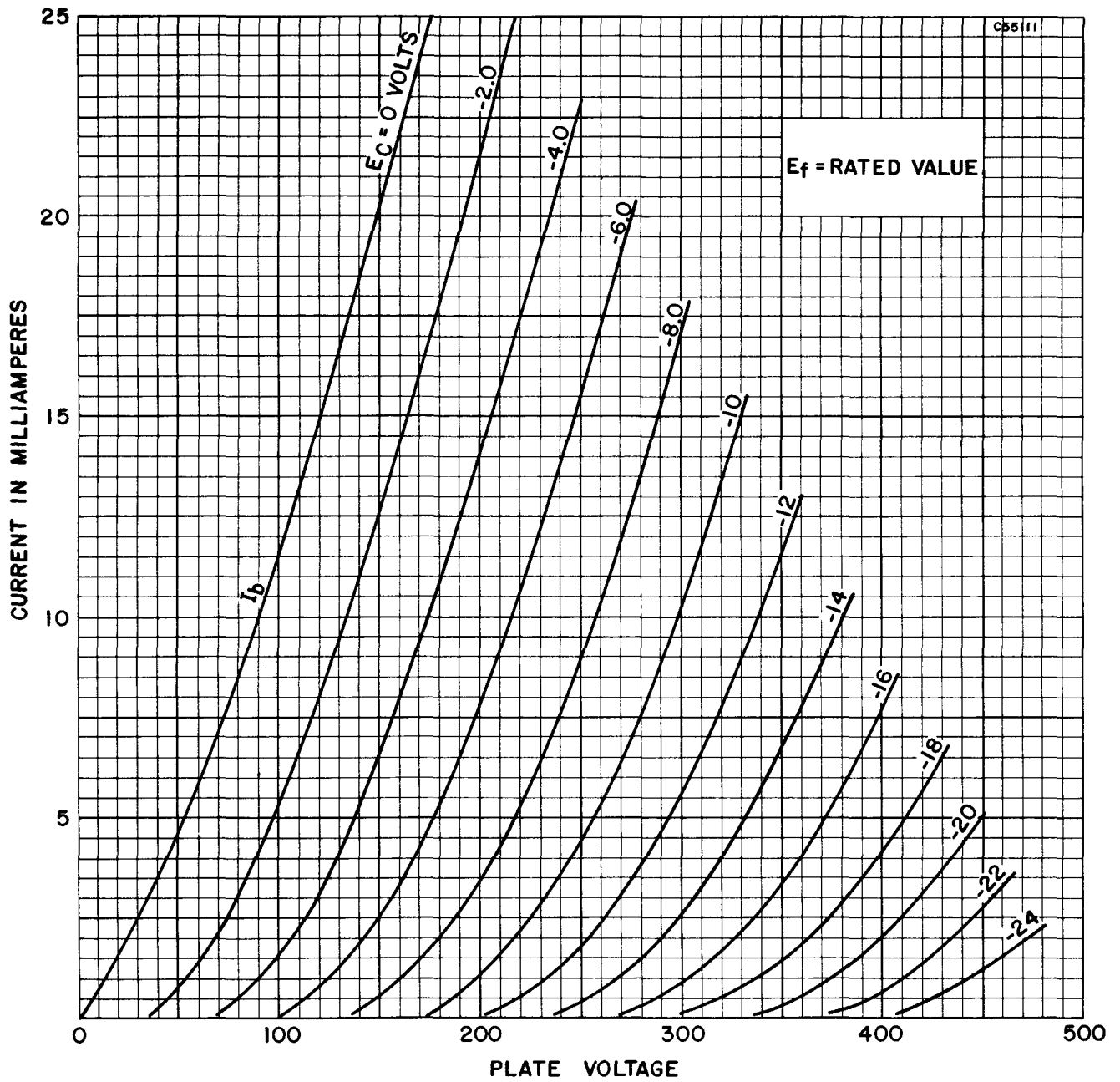
### Class A<sub>1</sub> Amplifier

|                                                                  |      |                 |
|------------------------------------------------------------------|------|-----------------|
| Plate Voltage . . . . .                                          | 90   | 250 Volts       |
| Grid Voltage . . . . .                                           | 0    | -8.0 Volts      |
| Plate Current . . . . .                                          | 10   | 9.0 Ma          |
| Plate Resistance (approx.) . . . . .                             | 6700 | 7700 Ohms       |
| Transconductance . . . . .                                       | 3000 | 2600 $\mu$ mhos |
| Amplification Factor . . . . .                                   | 20   | 20              |
| Plate Current at E <sub>c</sub> = -12.5 Volts . . . . .          |      | 1.3 Ma          |
| Grid Voltage for I <sub>b</sub> = 10 $\mu$ a (approx.) . . . . . | -7.0 | -18 Volts       |

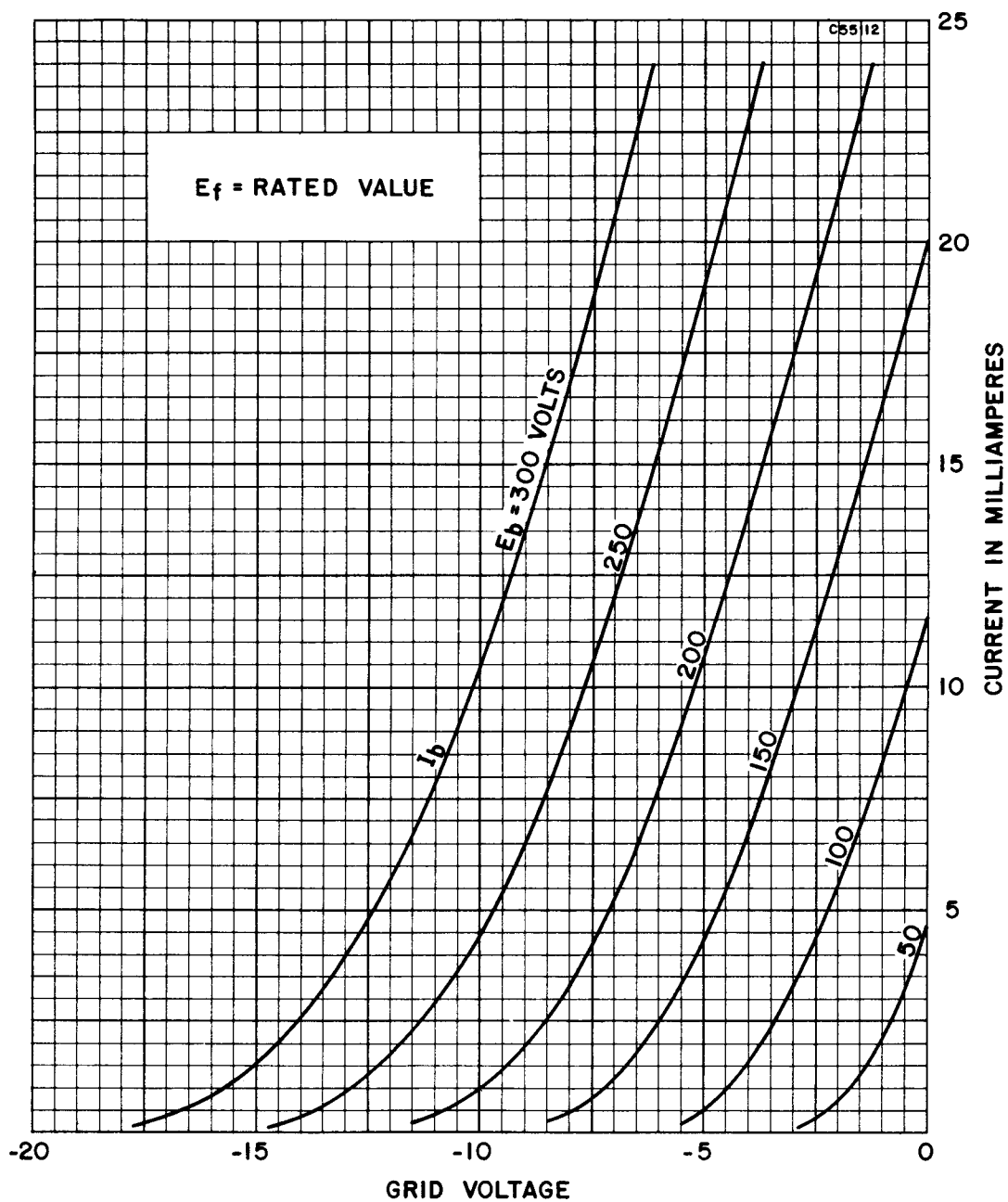
### NOTES:

1. All ratings, operating conditions and characteristics are for each section except where otherwise stated.
2. Section No. 1 connects to pins 4, 5 and 6. Section No. 2 connects to pins 1, 2 and 3.
3. For operation in a 525 line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission". The duty cycle of the voltage pulse must not exceed 15% of one scanning cycle.

**AVERAGE PLATE CHARACTERISTICS**  
**EACH SECTION**



AVERAGE TRANSFER CHARACTERISTICS  
EACH SECTION



### AVERAGE TRANSFER CHARACTERISTICS EACH SECTION

