



# 6SL7-GT—12SL7-GT

**6SL7-GT**  
**12SL7-GT**  
 ET-T1450  
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 12-56

## TWIN TRIODE

### DESCRIPTION AND RATING

The 6SL7-GT is a high-mu twin triode designed for use in resistance-coupled circuits as a voltage amplifier or phase inverter.

The 12SL7-GT is identical to the 6SL7-GT except for heater ratings.

#### GENERAL

#### ELECTRICAL

Cathode—Coated Unipotential	<b>6SL7-GT</b>	<b>12SL7-GT</b>	
Heater Voltage, AC or DC	6.3	12.6	Volts
Heater Current	0.3	0.15	Amperes

#### MECHANICAL

- Mounting Position—Any
- Envelope—T-9, Glass
- Base—B8-6, Intermediate-Shell Octal 8-Pin  
or B8-46, Short Intermediate-Shell Octal 8-Pin

#### MAXIMUM RATINGS

##### DESIGN-CENTER VALUES, EACH SECTION

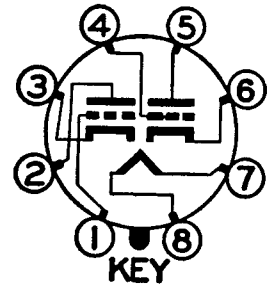
Plate Voltage	300	Volts
Positive DC Grid Voltage	0	Volts
Plate Dissipation	1.0	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	90	Volts
Heater Negative with Respect to Cathode	90	Volts

#### CHARACTERISTICS AND TYPICAL OPERATION

##### CLASS A<sub>1</sub> AMPLIFIER, EACH SECTION

Plate Voltage	250	Volts
Grid Voltage	-2.0	Volts
Amplification Factor	70	
Plate Resistance, approximate	44000	Ohms
Transconductance	1600	Micromhos
Plate Current	2.3	Milliamperes

#### BASING DIAGRAM

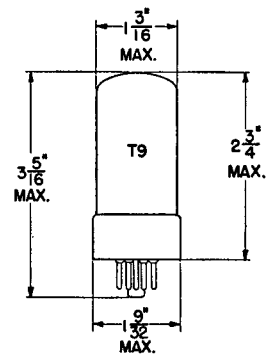


RETMA 8BD

#### TERMINAL CONNECTIONS

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

#### PHYSICAL DIMENSIONS



RETMA 9-11 OR 9-41

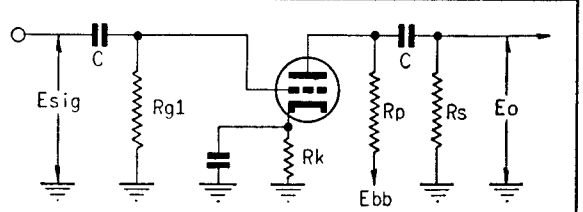


Supersedes ET-T339, dated 5-46

### CLASS A RESISTANCE-COUPLED AMPLIFIER

EACH SECTION

Rp Meg.	Rs Meg.	Rg1 Meg.	Ebb = 90 Volts			Ebb = 180 Volts			Ebb = 300 Volts		
			Rk	Gain	Eo	Rk	Gain	Eo	Rk	Gain	Eo
0.10	0.10	0.10	1500	26	6.6	1200	30	19	1100	32	35
0.10	0.24	0.10	1700	31	9.5	1400	36	26	1300	37	47
0.24	0.24	0.10	3200	35	7.6	2200	40	24	2100	42	44
0.24	0.51	0.10	3800	39	10	2700	44	30	2500	46	54
0.51	0.51	0.10	7100	39	7.9	4400	45	23	3800	48	45
0.51	1.0	0.10	8000	41	9.9	5200	47	29	4700	50	53
0.24	0.24	10	0	34	6.0	0	42	21	0	45	42
0.24	0.51	10	0	38	8.3	0	46	28	0	48	52
0.51	0.51	10	0	38	6.8	0	47	22	0	50	43
0.51	1.0	10	0	41	8.7	0	50	27	0	53	52

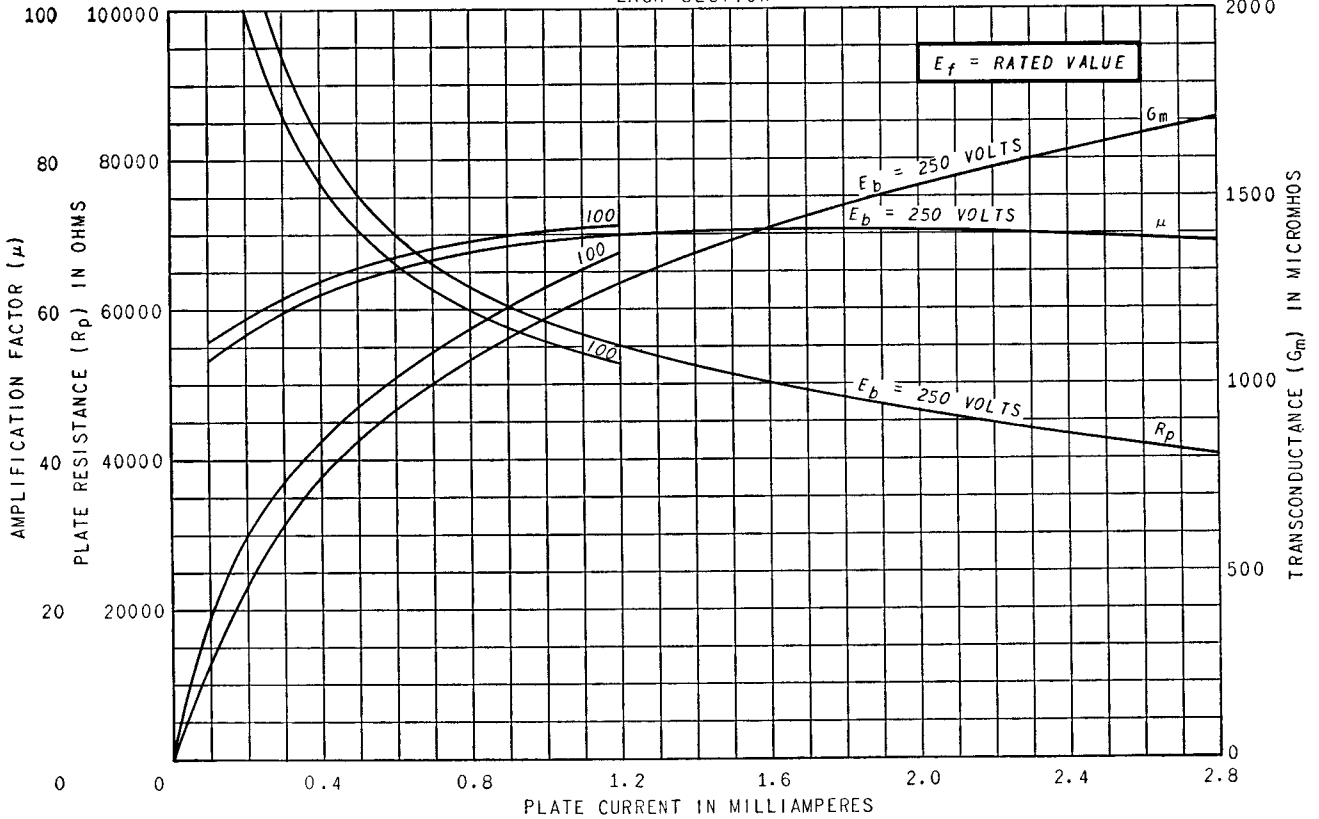


Note: Coupling capacitors (C) should be selected to give desired frequency response. Rk should be adequately by-passed.

Notes: 1. Eo is maximum RMS voltage output for five percent (5%) total harmonic distortion. 2. Gain measured at 2.0 volts RMS output. 3. For zero-bias data, generator impedance is negligible.

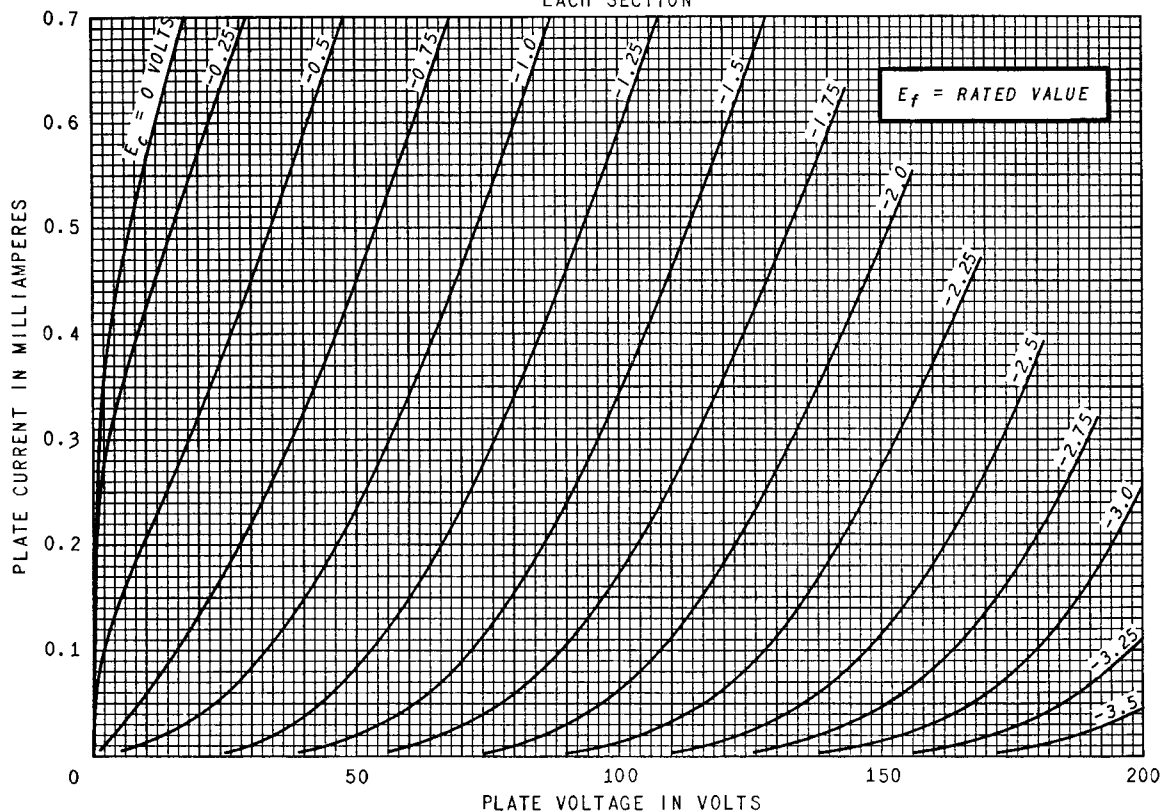
### AVERAGE CHARACTERISTICS

EACH SECTION



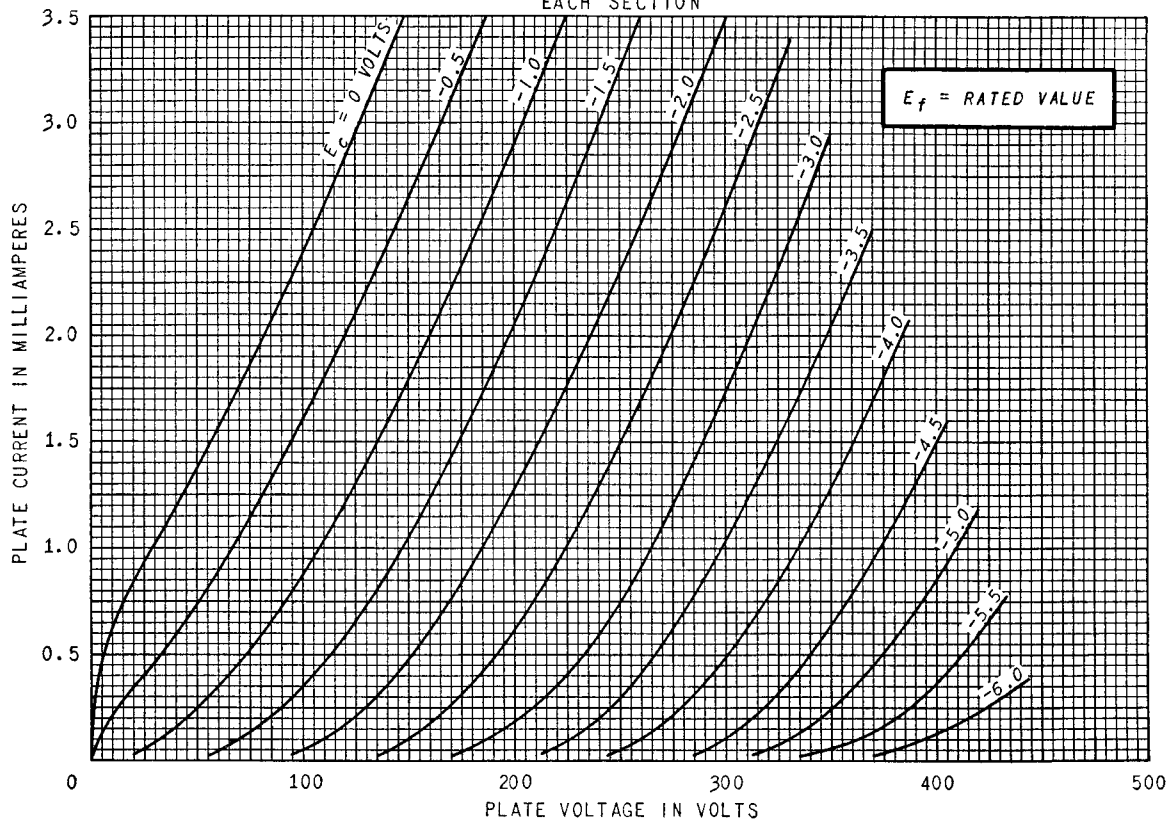
### AVERAGE PLATE CHARACTERISTICS

EACH SECTION

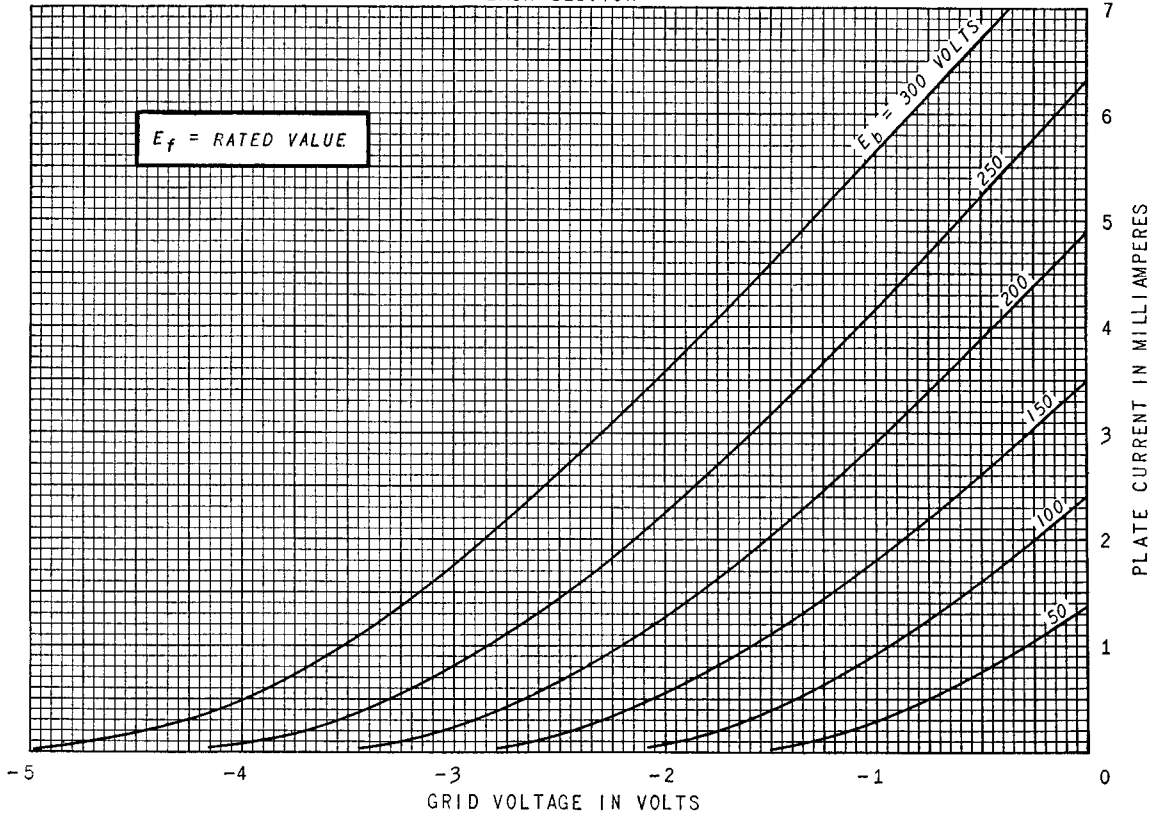


### AVERAGE PLATE CHARACTERISTICS

EACH SECTION



**AVERAGE TRANSFER CHARACTERISTICS**  
EACH SECTION



ELECTRONIC COMPONENTS DIVISION  
**GENERAL**  **ELECTRIC**  
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