

12SC7

Description and Rating

GENERAL-PURPOSE TWIN TRIODE

GENERAL DESCRIPTION

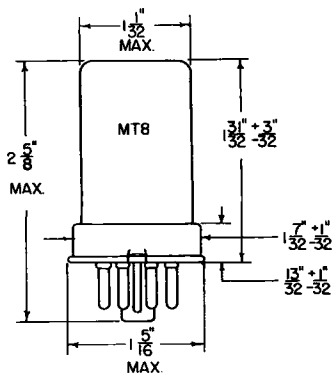
Principal Application: The type 12SC7 is twin-triode amplifier designed for use as an audio amplifier or

Cathode: Coated Unipotential
Heater Voltage (A-C or D-C) 12.6 Volts
Heater Current 0.15 Ampere
Envelope: MT-8 Metal Shell
Base: B8-21 Small Wafer Octal 8-Pin Phenolic

phase inverter. Special shielding arrangement in the base permits operation at a low hum level.

Mounting Position: Any
Direct Interelectrode Capacitance: *
Grid to Plate. 2.0 $\mu\mu\text{f}$
Input 2.2 $\mu\mu\text{f}$
Output 3.0 $\mu\mu\text{f}$

PHYSICAL DIMENSIONS

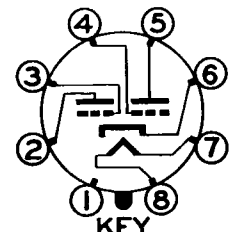


RMA 8-1

TERMINAL CONNECTIONS

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

BASING DIAGRAM



RMA 8S
BOTTOM VIEW

MAXIMUM RATINGS

EACH UNIT

	Design Center	Absolute	
Plate Voltage	250	275	Volts
D-C Heater-Cathode Voltage	90	100.	Volts

CHARACTERISTICS AND TYPICAL OPERATION

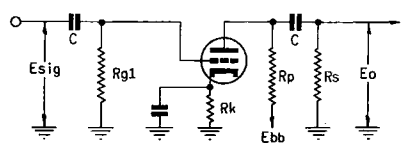
CLASS A AMPLIFIER - (EACH UNIT)

Heater Voltage	12.6	Volts
Plate Voltage	250	Volts
Grid Bias Voltage	-2	Volts
Amplification Factor	70	
Plate Resistance	53000	Ohms
Transconductance	1325	Micromhos
Plate Current.	2.0	Milliamperes

* Approximate values for each unit with shell connected to cathode.

CLASS A RESISTANCE-COUPLED AMPLIFIER

Rp Meg.	Rg1 Meg.	Rs Meg.	Ebb = 90 Volts			Ebb = 180 Volts			Ebb = 300 Volts		
			Rk	Gain	Eo	Rk	Gain	Eo	Rk	Gain	Eo
0.10	*	0.10	1800	19	6.0	910	25	18	680	29	32
0.10	*	0.24	2000	25	8.0	1000	29	24	750	34	42
0.24	*	0.24	3300	28	9.0	1800	35	23	1300	39	40
0.24	*	0.51	3600	33	10.0	2000	40	30	1500	42	51
0.51	*	0.51	5600	35	8.5	3000	43	27	2200	46	46
0.51	*	1.0	6200	38	12.0	3300	46	35	2400	49	55
0.24	10	0.24	---	29	7.5	---	36	23	---	39	44
0.24	10	0.51	---	33	10.0	---	41	30	---	43	55
0.51	10	0.51	---	36	9.5	---	44	26	---	46	51
0.51	10	1.0	---	40	12.0	---	48	36	---	50	62

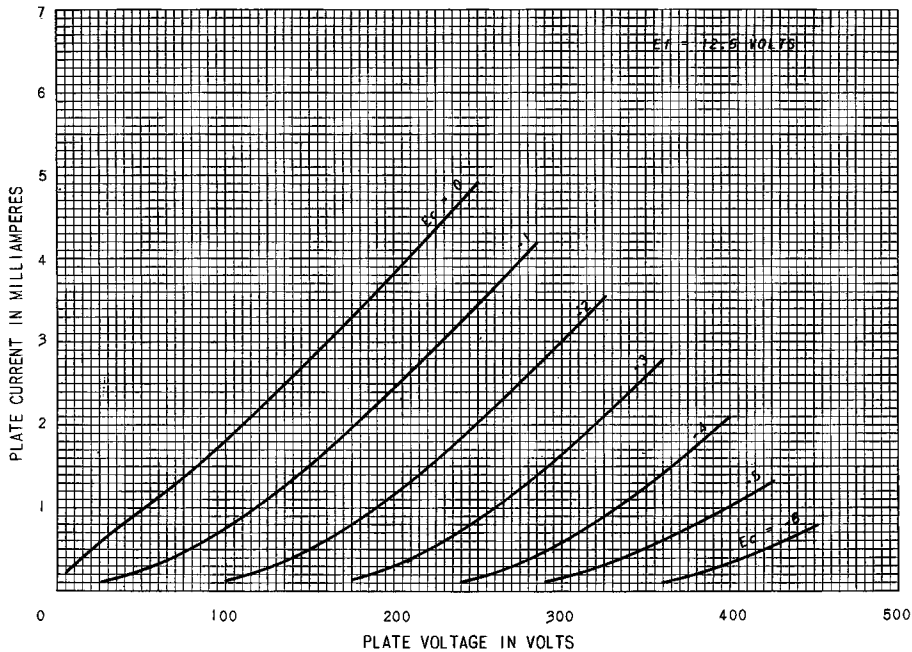


Note: Coupling capacitors (C) should be selected to give desired frequency response. Rk should be adequately by-passed.

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. *Value of Rg1 is non-critical.

AVERAGE PLATE CHARACTERISTICS

EACH UNIT



Electronics Department

GENERAL ELECTRIC

Schenectady, N. Y.