

**2A6**  
**Description and Rating**  
**DUPLEX-DIODE TRIODE**

**GENERAL DESCRIPTION**

Principal Application: The 2A6 is a heater-cathode type duplex-diode high- $\mu$  triode designed for use as a combined detector, audio-frequency amplifier

and automatic-volume-control tube. Except for heater rating the 2A6 and 75 are identical.

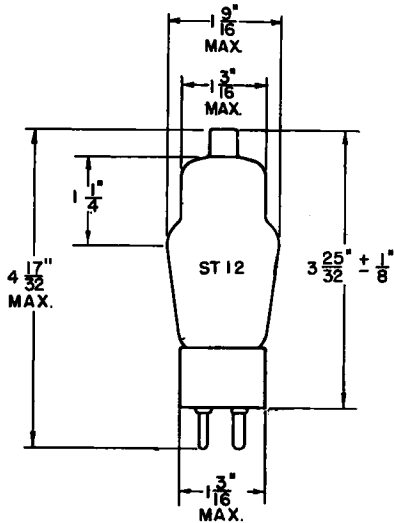
Cathode: . . . . . Coated Unipotential  
 Heater Voltage (A-C or D-C). . . . . 2.5 Volts  
 Heater Current . . . . . 0.8 Ampere  
 Envelope: . . . . . ST-12 Glass  
 Base: . . . . . A6-7 Small 6-Pin Phenolic  
 Top Cap: . . . . . C1-1 Small Metal

Mounting Position: . . . . . Any  
 Direct Interelectrode Capacitances: \*  
 Grid to Plate . . . . . 1.7  $\mu$ f  
 Input . . . . . 1.7  $\mu$ f  
 Output . . . . . 3.8  $\mu$ f

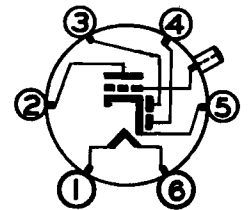
**PHYSICAL DIMENSIONS**

**TERMINAL CONNECTIONS**

**BASING DIAGRAM**



- Pin 1 - Heater
- Pin 2 - Triode Plate
- Pin 3 - Diode Plate Number 2
- Pin 4 - Diode Plate Number 1
- Pin 5 - Cathode
- Pin 6 - Heater
- Top Cap - Triode Grid



RMA 6G  
BOTTOM VIEW

RMA 12-6

**MAXIMUM RATINGS**

	Design Center		Absolute	
Plate Voltage . . . . .	250		275	Volts
Grid Bias Voltage . . . . .	Never Positive			
Diode Operation Current per Plate . . . . .	0.9		1.0	Milliampere
D-C Heater-Cathode Voltage . . . . .	.90		100	Volts

**CHARACTERISTICS AND TYPICAL OPERATION**

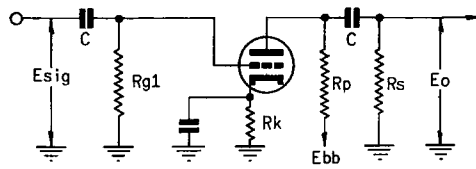
**CLASS A AMPLIFIER**

Heater Voltage . . . . .	2.5	2.5	Volts
Plate Voltage . . . . .	100	250	Volts
Grid Bias Voltage . . . . .	-1	-2	Volts
Amplification Factor . . . . .	100	100	
Plate Resistance (Approx) . . . . .	110000	91000	Ohms
Transconductance . . . . .	900	1100	Micromhos
Plate Current . . . . .	0.4	0.9	Milliampere

\* Approximate values without external shield.

### 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	4300	22	5.0	2400	29	15	2000	31	28
0.10	*	0.24	4700	27	7.0	2700	35	20	2200	38	37
0.24	*	0.24	7500	31	7.5	4300	42	20	3300	46	36
0.24	*	0.51	8200	40	10	4700	50	26	3900	52	50
0.51	*	0.51	13000	39	9.5	7500	53	24	5600	58	47
0.51	*	1.0	15000	43	11	8200	58	31	6200	62	56
0.24	10	0.24	---	38	4.5	---	45	19	---	49	38
0.24	10	0.51	---	45	6.5	---	52	24	---	57	48
0.51	10	0.51	---	48	7.0	---	59	22	---	62	42
0.51	10	1.0	---	52	8.5	---	62	25	---	66	55

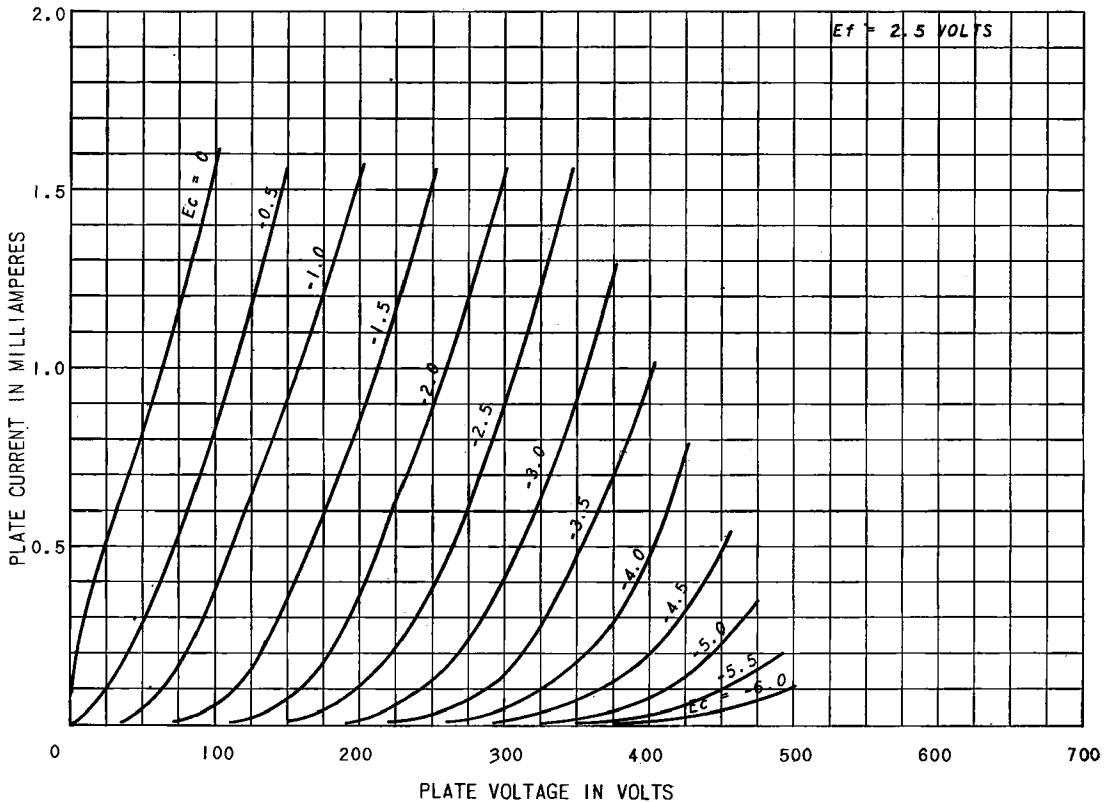


Note: Coupling capacitors (C) should be selected to give desired frequency response. Rk should be adequately by-passed.

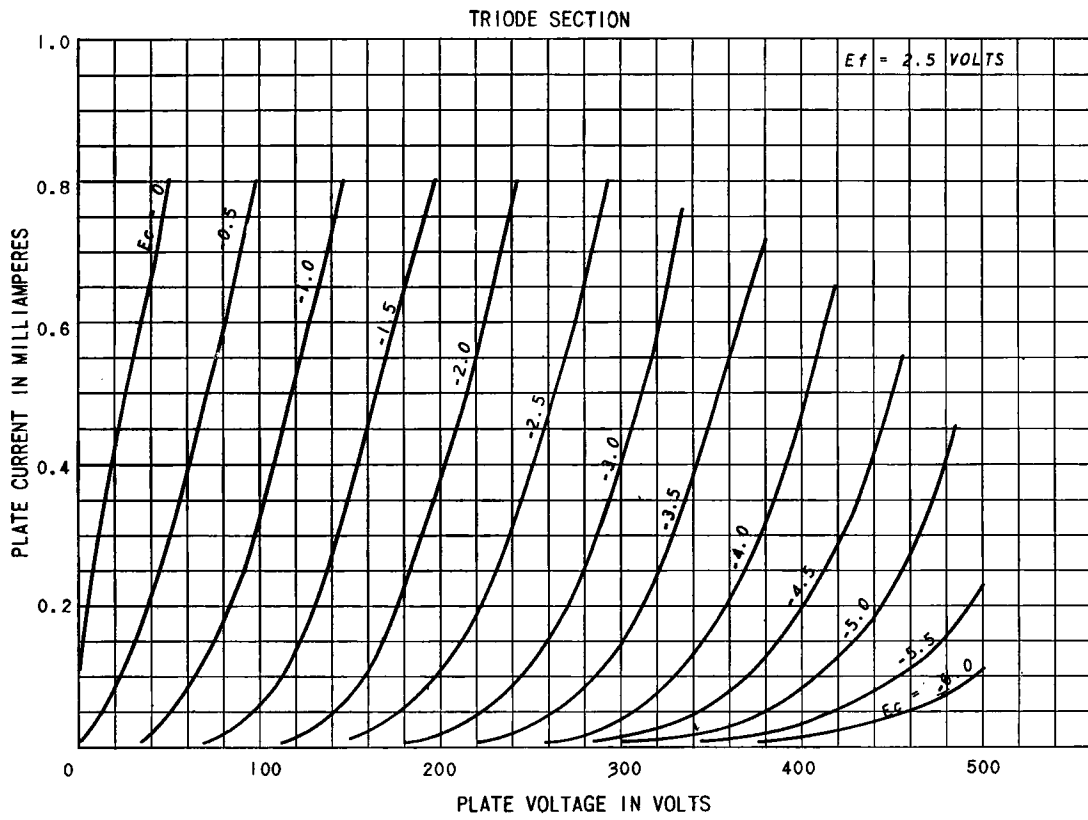
Notes: 1. Eo is maximum RMS voltage output for five percent (5%) total harmonic distortion. 2. Gain measured at 2.0 volts RMS output. 3. For zero-bias data generator impedance is negligible. \*Value of Rg1 is non-critical.

### AVERAGE PLATE CHARACTERISTICS

TRIODE SECTION



### AVERAGE PLATE CHARACTERISTICS



TUBE DEPARTMENT  
**GENERAL**  **ELECTRIC**  
Schenectady 5, N. Y.