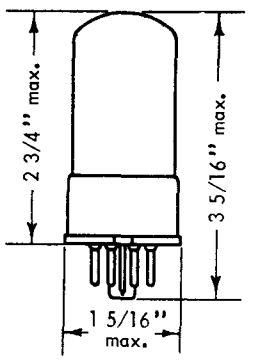
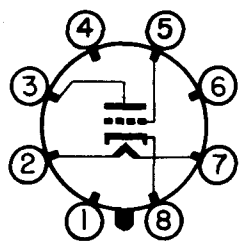
TRIODE

TYPE 6J5WGT 12J5WGT

The 6J5WGT is a heater-cathode type, medium-mu triode. Its principal application is as a detector, amplifier or oscillator tube and is designed for dependable operation under conditions of shock and vibration usually found in mobile and aircraft applications.

The 12J5WGT is identical to the 6J5WGT except for heater characteristics and is especially useful in AC/DC equipment applications.





BOTTOM VIEW

6Q

MECHANICAL DATA

ENVELOPE: T-9 Glass

BASE: Small Wafer Octal 6-Pin, with Sleeve

TERMINAL CONNECTIONS:

Pin 1 Base Sleeve	Pin 7 Heater
Pin 2 Heater	Pin 8 Cathode
Pin 3 Plate	
Pin 5 Grid	

MOUNTING POSITION: Any

ELECTRICAL DATA

HEATER CHARACTERISTICS:

	6J5WGT	12J5WGT	
Heater Voltage (ac or dc)	6.3± 10%	12.6± 10%	volts
Heater Current	0.3	0.15	amps.
Maximum Heater-Cathode Voltage:			
Heater Positive with Respect to Cathode			
DC Component	100	100	volts
Total DC and Peak	200	200	volts
Heater Negative with Respect to Cathode			
Total DC and Peak	200	200	volts

DIRECT INTERELECTRODE CAPACITANCES: ($\mu\mu fds$) ▲

Grid to Plate	3.1	
Grid to Cathode	3.2	
Plate to Cathode	3.2	

RATINGS - ABSOLUTE MAXIMUM VALUES:

Plate Voltage	330	volts
Grid Voltage	Never Positive	
Plate Dissipation	2.75	watts
Total Cathode Current	20	ma.

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:

Plate Voltage	90	250	volts
Grid Voltage ♦	0	-8	volts
Amplification Factor	20	20	
Plate Resistance	6700	7700	ohms
Transconductance	3000	2600	μmhos
Plate Current	10	9	ma.

▲ *With JETEC Shield #308 connected to Pin 8.*

♦ *Under maximum rated conditions, the dc resistance of the grid circuits should not exceed 1.0 megohm.*

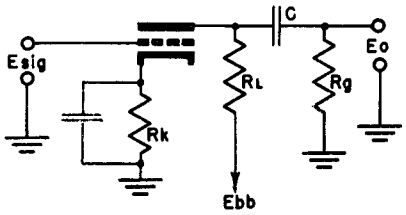
RAYTHEON

TRIODE

RESISTANCE - COUPLED AMPLIFIER CHART

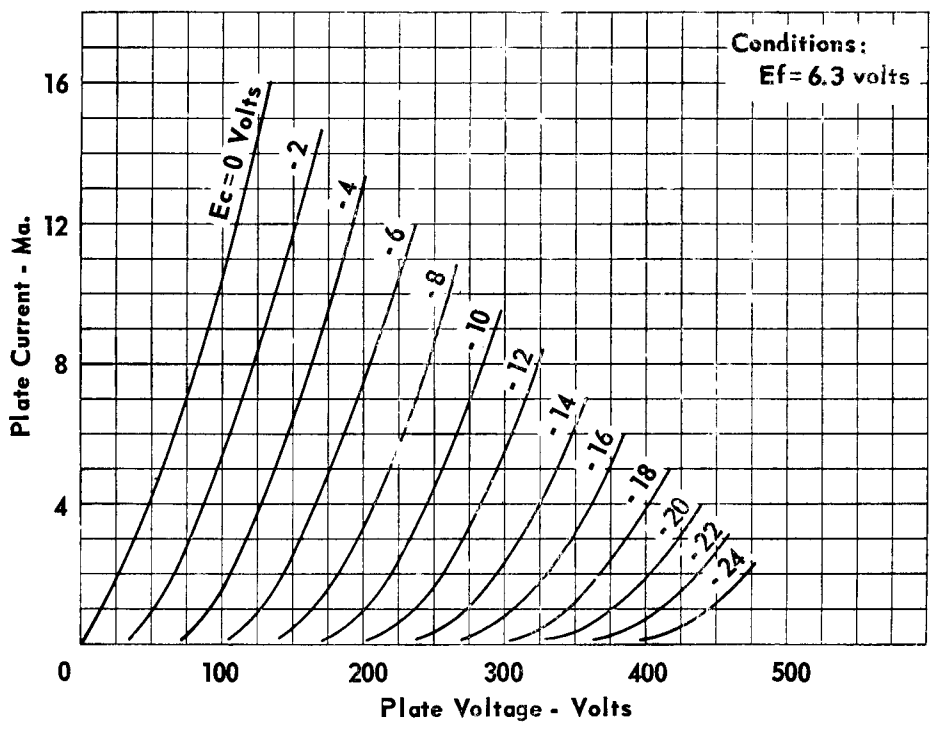
		Ebb = 90 volts			Ebb = 180 volts			Ebb = 300 volts		
R_L	Rg	Rk	Eo	Gain ●	Rk	Eo	Gain ●	Rk	Eo	Gain ●
0.05	0.05	1650	11	11	1190	24	13	1020	41	13
	0.1	2070	14	12	1490	30	13	1270	51	14
0.1	0.1	3470	12	13	2330	26	14	1900	43	14
	0.25	3940	17	13	2830	34	14	2440	56	14
0.25	0.25	7860	14	13	5560	28	14	4590	46	14
	0.5	9760	18	13	7000	36	14	5770	57	14

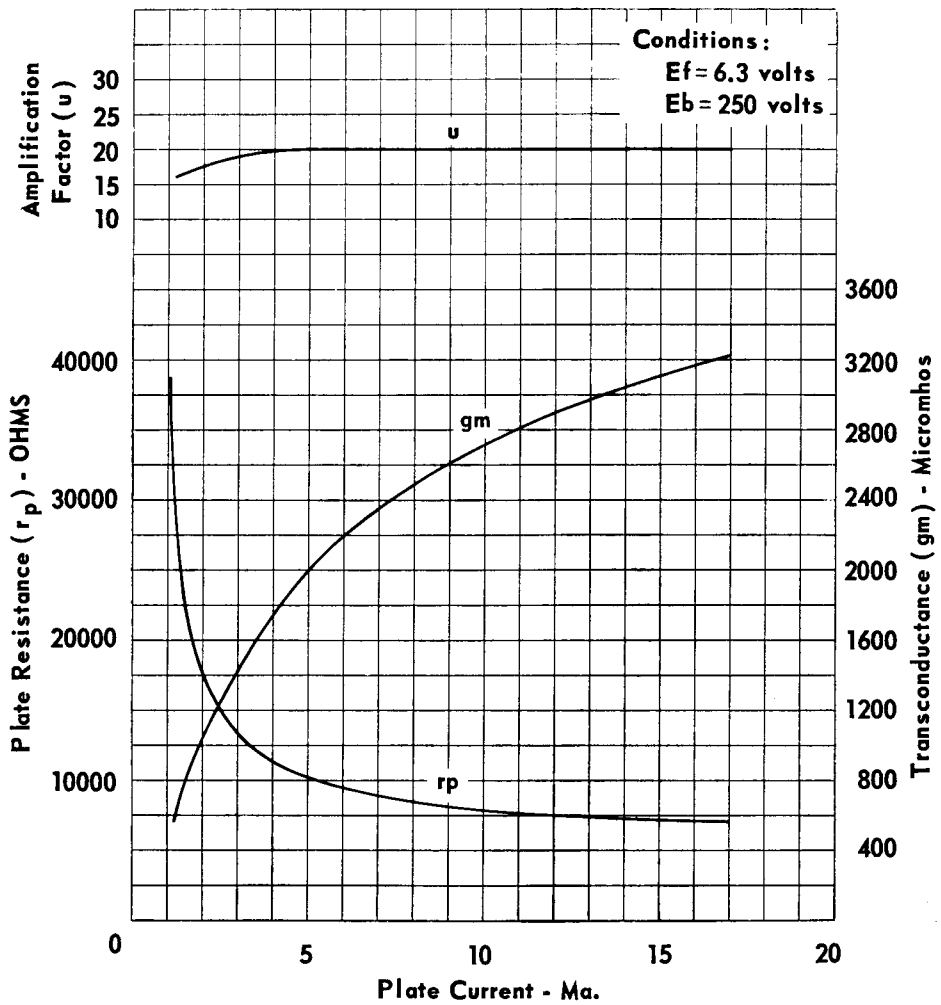
Eo = Voltage across Rg at grid-current point.
● = At 5 volts (RMS) output.



Value of C selected for desired frequency response. Rk should be adequately by-passed.

AVERAGE PLATE CHARACTERISTICS



TRIODE

AVERAGE CHARACTERISTICS