



TYPE 6J5WGT 12J5WGT

Excellence in Electronics

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.

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: (pufds) ▲

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

RATINGS - ABSOLUTE MAXIMUM VALUES:

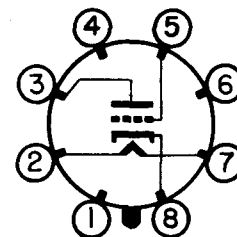
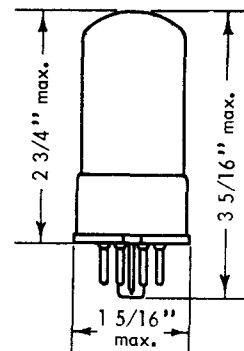
Plate Voltage	330 volts
Grid Voltage ♦	Never Positive
Plate Dissipation	2.75 watts
Total Cathode Current	20 ma.

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.



BOTTOM VIEW

6Q

Data



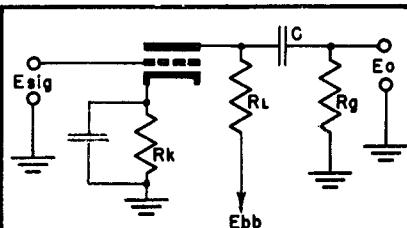
TRIODE

RESISTANCE - COUPLED AMPLIFIER CHART

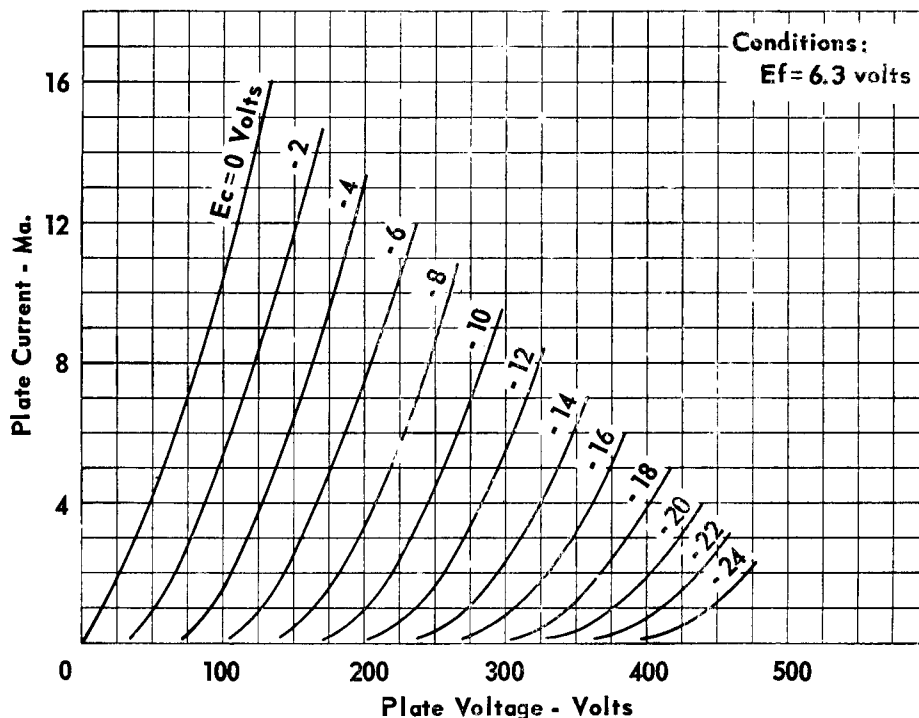
		Ebb = 90 volts			Ebb = 180 volts			Ebb = 300 volts		
R_L	R_g	R_k	E_o	Gain •	R_k	E_o	Gain •	R_k	E_o	Gain •
0.05	0.05	1650	11	11	1190	24	13	1020	41	13
	0.1	2070	14	12	1490	30	13	1270	51	14
0.1	0.1	3470	12	13	2330	26	14	1900	43	14
	0.25	3940	17	13	2830	34	14	2440	56	14
0.25	0.25	7860	14	13	5560	28	14	4590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

E_o = Voltage across R_g at grid-current point.
• = At 5 volts (RMS) output.

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



AVERAGE PLATE CHARACTERISTICS



RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS



TYPE 6J5WGT
12J5WGT

TRIODE

AVERAGE CHARACTERISTICS

