



6J5

Description and Rating

GENERAL-PURPOSE TRIODE

GENERAL DESCRIPTION

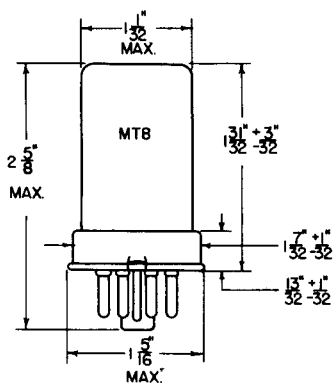
Principal Application: The 6J5 is a general-purpose triode designed for use as a detector, amplifier or oscillator. Features of the 6J5 include a relatively

Cathode Coated Unipotential
 Heater Voltage (A-C or D-C) 6.3 Volts
 Heater Current 0.3 Ampere
 Envelope MT-8, Metal Shell
 Base B6-23, Small Wafer Octal 6-Pin

high transconductance and a medium amplification factor. It is well suited to resistance-coupled service, having high output voltage capabilities.

Mounting Position Any
 Direct Interelectrode Capacitances: #
 Grid to Plate 3.4 $\mu\mu\text{f}$
 Input 3.4 $\mu\mu\text{f}$
 Output 3.6 $\mu\mu\text{f}$

PHYSICAL DIMENSIONS

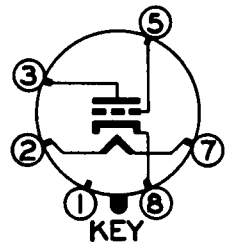


RTMA 8-1

TERMINAL CONNECTIONS

- Pin 1 - Shell
- Pin 2 - Heater
- Pin 3 - Plate
- Pin 5 - Grid
- Pin 7 - Heater
- Pin 8 - Cathode

BASING DIAGRAM



RTMA 6Q
BOTTOM VIEW

DESIGN CENTER VALUES

Plate Voltage	300	Volts
Positive D-C Grid Voltage	0	Volts
Plate Dissipation	2.5	Watts
Cathode Current	20	Milliamperes
Heater-Cathode Voltage	90	Volts
Grid Circuit Resistance	1.0	Megohm

MAXIMUM RATINGS

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A₁ AMPLIFIER

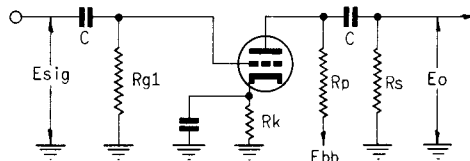
Plate Voltage	90	250	Volts
Grid Voltage	0	-8	Volts
Amplification Factor	20	20	
Plate Resistance (Approx)	6700	7700	Ohms
Transconductance	3000	2600	Micromhos
Plate Current	10	9	Milliamperes
Grid Voltage (Approx) for $I_b = 10$ Microamperes	-7	-18	Volts

With pin 1 connected to pin 8 at the socket



CLASS A RESISTANCE-COUPLED AMPLIFIER

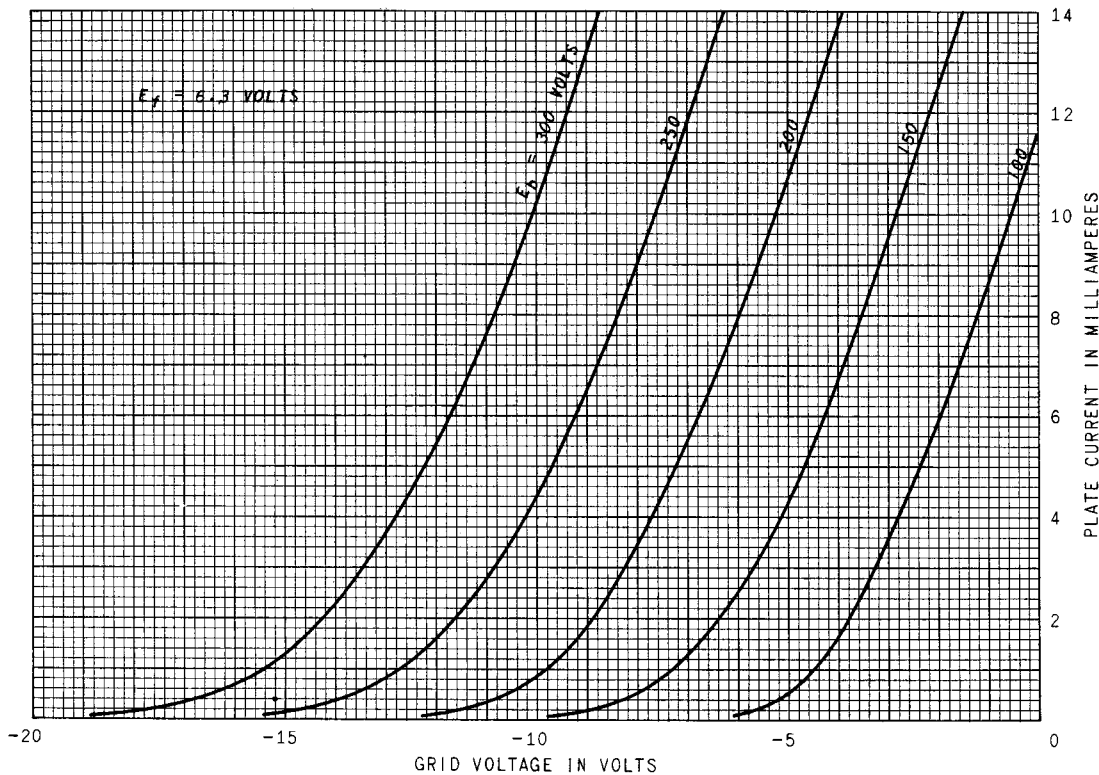
R _p Meg.	R _s Meg.	R _{g1} Meg.	E _{bb} = 90 Volts			E _{bb} = 180 Volts			E _{bb} = 300 Volts		
			R _k	Gain	E _o	R _k	Gain	E _o	R _k	Gain	E _o
0.10	0.10	0.1	3300	14	13	2200	14	26	1800	14	40
0.10	0.24	0.1	3600	14	16	2700	15	33	2200	15	51
0.24	0.24	0.1	7500	14	16	5100	15	30	4300	15	44
0.24	0.51	0.1	9100	14	19	6800	15	39	5100	15	54
0.51	0.51	0.1	13000	14	16	9100	15	30	6800	16	40
0.51	1.0	0.1	15000	14	19	10000	16	32	7500	16	45
0.24	0.24	10	0	15	13	0	16	33	0	17	46
0.24	0.51	10	0	16	17	0	17	38	0	18	62
0.51	0.51	10	0	16	14	0	18	32	0	18	53
0.51	1.0	10	0	17	18	0	18	41	0	19	68



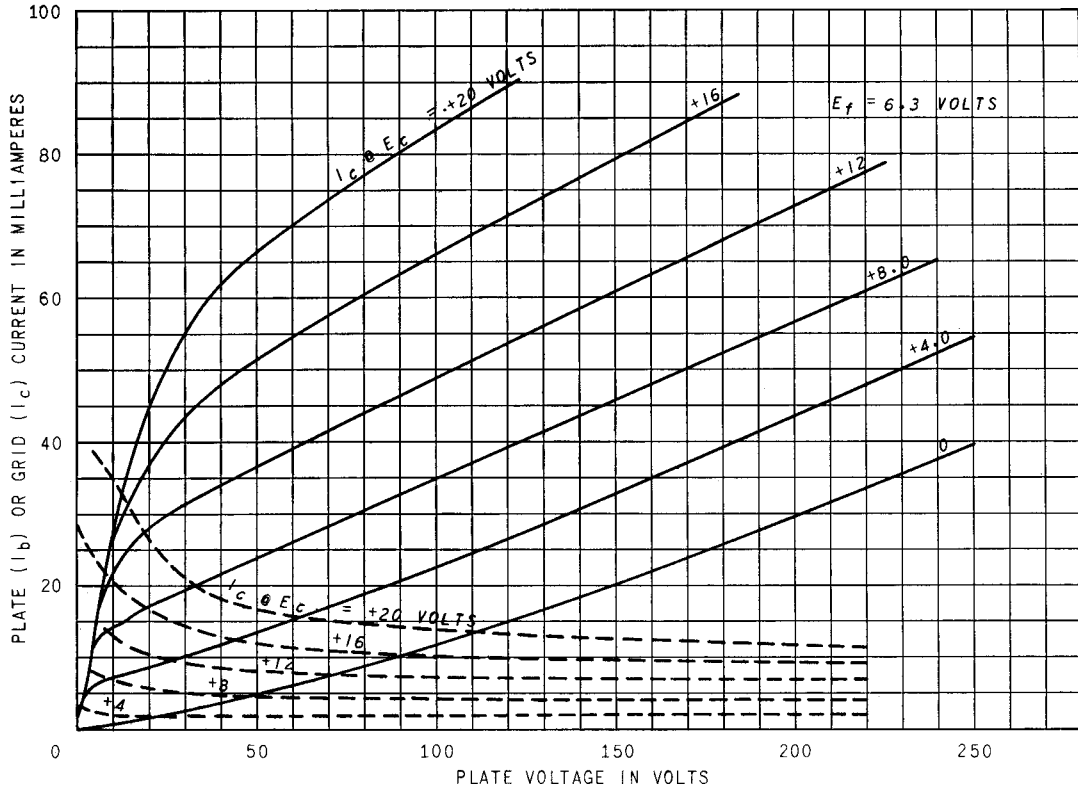
Note: Coupling capacitors (C) should be selected to give desired frequency response. R_k should be adequately by-passed.

Notes: 1. E_o 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.

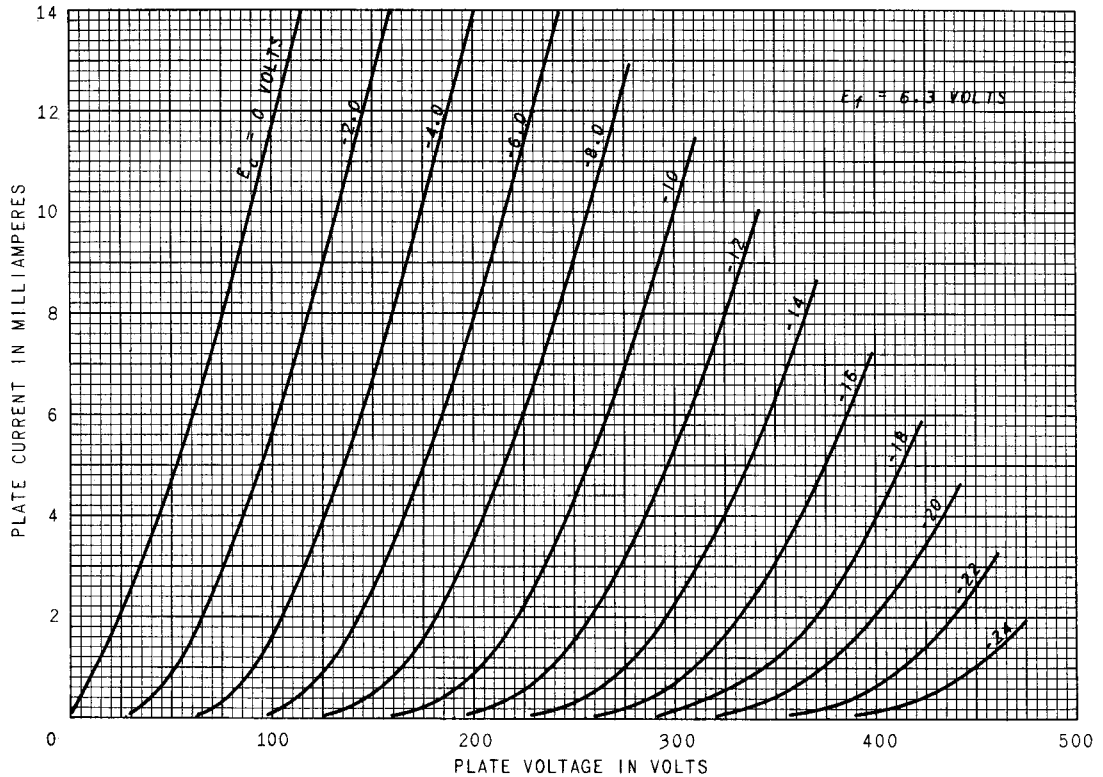
AVERAGE CHARACTERISTICS



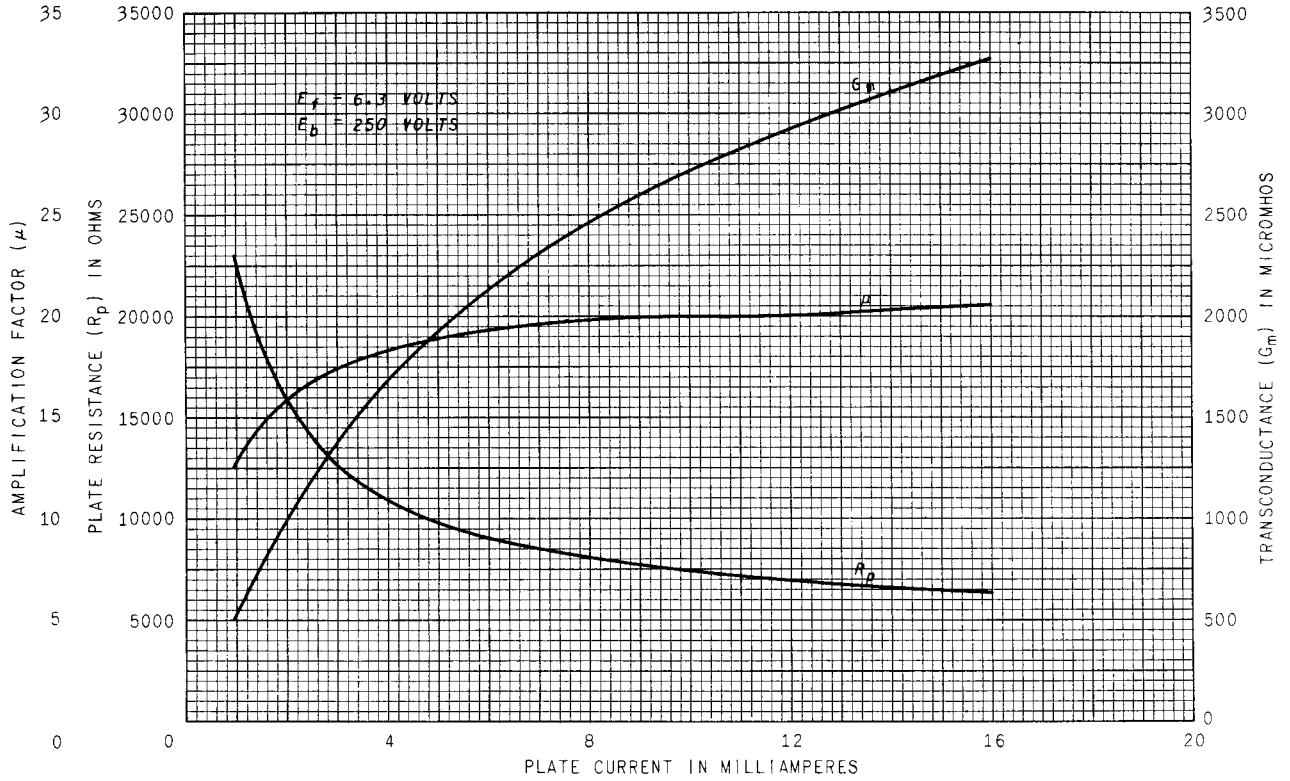
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS



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