

Direct Interelectrode Capacitances (Approx.)	Unit No. 1	Unit No. 2	
Grid to Plate	3.0	3.0	pF
Grid to Cathode and Heater	3.8	3.8	pF
Plate to Cathode and Heater	0.5	0.38	pF
Plate of Unit No.1 to plate of Unit No.2	0.5		pF

Frequency Divider in Computer Service and "On-Off" Control Service

Values are for Each Unit

MAXIMUM RATINGS (Absolute-Maximum Values)

Plate Voltage	330	volts
Grid Voltage:		
Negative bias value	150	volts
Plate Dissipation	2.4	watts
Total for both units	4.4	watts
DC Cathode Current	16.5	mA
Bulb Temperature (At hottest point on bulb surface)	165	°C

TYPICAL OPERATION IN COMPUTER SERVICE

	Cutoff Condition	Conduction Condition	
Plate Supply Voltage	150	150	volts
Plate Load Resistor	7200	7200	ohms
Plate Current	—	10.5	mA
Grid Voltage (Approx.) for grid current of 140 μ A	—	less than 1	volt
Grid Voltage (Approx.) for plate current of 150 μ A	-5.5	—	volts
Difference in Grid Voltage Between Units (For plate current of 150 μ A per unit)	1.5	—	volts

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

Class A₁ Amplifier (Each Unit)

CHARACTERISTICS

Plate Supply Voltage	150	volts
Cathode-Bias Resistor	220	ohms
Amplification Factor	47	
Plate Resistance	7250	ohms
Transconductance	6500	μ mhos
Plate Current	8.2	mA
Grid Voltage (Approx.) for plate current of 150 μ A	-5.5	volts

6005

Refer to chart at end of section.

6005/6AQ5W

Refer to chart at end of section.

6005/6AQ5W/

6095

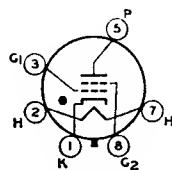
Refer to chart at end of section.

6012

INDUSTRIAL
TYPE

GAS THYRATRON

Glass octal negative-control gas-tetrode thyatron for use in relay and grid-controlled rectifier applications. Outlines section, 36; requires octal socket.



600

	Min.	Av.	Max.	
Heater Voltage (ac/dc)	5.7	6.3	6.9	volts
Heater Current	—	2.6	2.85	amperes
Heater-Cathode Voltage:				
Peak			+25, -100 max.	volts
Cathode:				
Minimum heating time prior to tube conduction		30		seconds
Maximum outage time without reheating		5		seconds
Direct Interelectrode Capacitances (Approx.):				
Grid No.1 to Anode		0.23		pF
Grid No.1 to Cathode, Grid No.2, and Heater		5.8		pF
Anode to Cathode, Grid No.2, and Heater		3.9		pF

Ionization Time (Approx.):

For conditions: dc anode volts = 100, grid-No.2 volts = 0, grid-No.1 square-pulse volts = +50, and peak anode amperes during conduction = 5 0.5

Deionization Time (Approx.)

See Table I μs

Maximum Critical Grid-No.1 Current:

For conditions: ac anode-supply volts = 460 (rms), and average anode amperes = 0.5 3

Anode Voltage Drop (Approx.)

10 μA volts

Grid-No.1 Control Ratio (Approx.):

For conditions: grid-No.1 resistor (megohms) = 0, grid-No.2 resistor (megohms) = 0, and grid-No.2 volts = 0 150

Grid-No.2 Control Ratio (Approx.):

For conditions: grid-No.1 resistor (megohms) = 0, grid-No.2 resistor (megohms) = 0, and grid-No. volts = 0 650

Relay and Grid-Controlled Rectifier Service

For Anode-Supply Frequency of 60 Hz

MAXIMUM RATINGS (Absolute-Maximum Values)

Peak Anode Voltage:

Forward 650 volts
Inverse 1300 volts

Grid-No.2 (Shield-Grid) Voltage:

Peak, before tube conduction -100 volts
Average#, during tube conduction -10 volts

Grid-No.1 (Control-Grid) Voltage:

Peak, before tube conduction -200 volts
Average#, during tube conduction -10 volts

Cathode Current:

Peak 5 amperes
Average# 0.5 ampere
Fault, for duration of 0.1 second max. 20 amperes

Average Grid-No.2 Current#

+0.05 ampere

Average Grid-No.1 Current#

+0.05 ampere

Ambient-Temperature Range

-75 to +90 °C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance 2 megohms

Averaged over any interval of 30 seconds maximum.

OPERATIONAL RANGE
OF CRITICAL GRID-No.1 VOLTAGE

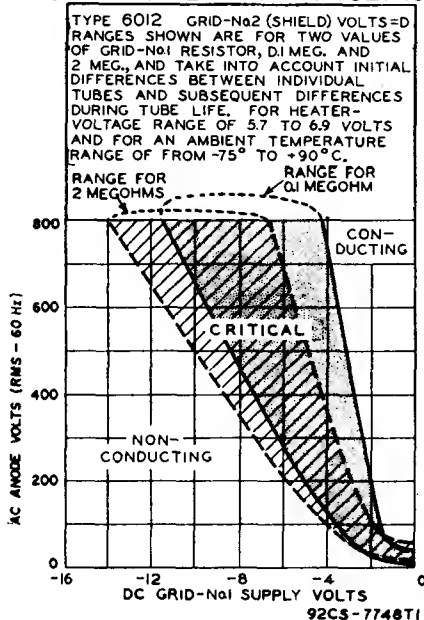


Table 1

DC Anode Volts	125		250		R_{F1} M Ω	E_{CC1} volts	R_{F2}^* ohms	E_{CC2} volts
DC Anode Amperes	0.5	1.0	0.5	1.0				
DEIONIZATION TIME	175	225	250	275	0.001	-13	1000	0
	350	375	450	475	0.1			
	650	700	1100	1200	2			
μS (Approx.)	100	125	100	125	0.001	-100	1000	0
	125	150	150	175	0.1			
	250	275	275	300	2			

* Series resistor between grid No.2 and cathode.

6021	Refer to chart at end of section.
6072	Refer to chart at end of section.
6072A	Refer to chart at end of section.
6073	Refer to chart at end of section.
6073/0A2	Refer to chart at end of section.
6074	Refer to chart at end of section.
6074/0B2	Refer to chart at end of section.

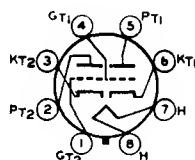
6080

INDUSTRIAL
TYPE

LOW-MU TWIN POWER TRIODE

Glass octal type used as a regulator tube in dc power supply units and in projection television booster scanning applications. Outlines section, 36; requires octal socket.

Heater Voltage	6.3 $\pm$ 10%	volts
Heater Current	2.5	amperes
Heater-Cathode Voltage: #		
Peak	$\pm$ 300 max.	volts
Direct Interelectrode Capacitances (Approx.)		
Grid to Plate (each unit)	8	pF
Input (each unit)	6	pF
Output (each unit)	2.2	pF
Heater to Cathode (each unit)	11	pF
Grid of Unit No.1 to Grid of Unit No.2	0.5	pF
Plate of Unit No.1 to Plate of Unit No.2	2	pF



8BD

Class A₁ Amplifier (Each Unit)

CHARACTERISTICS

Plate-Supply Voltage	135	volts
Cathode-Bias Resistor	250	ohms
Amplification Factor	2	
Plate Resistance	280	ohms
Transconductance	7000	μmhos
Plate Current	125	mA

DC Amplifier (Each Unit)

MAXIMUM RATINGS (Absolute-Maximum Values)

Plate Voltage	250	volts
Plate Current	125	mA
Plate Dissipation	13	watts
Bulb Temperature (At hottest point on bulb surface)	200	$^{\circ}\text{C}$