

Plate Dissipation	1.85	watts
Grid-No.2 Input	0.55	watt
Cathode Current	20	mA

TYPICAL OPERATION AND CHARACTERISTICS

Plate Voltage	120	180	volts
Grid-No.2 Voltage	120	120	volts
Cathode-Bias Resistor	180	180	ohms
Plate Resistance (Approx.)	0.30	0.50	megohm
Transconductance	5000	5100	μ mhos
Plate Current	7.5	7.7	mA
Grid-No.2 Current	2.5	2.4	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—8.5	—8.5	volts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	0.5	megohm
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Special Ratings & Performance Data**SHOCK RATING**

Impact Acceleration	500 max.	g
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FATIGUE RATING

Vibrational Acceleration	2.5 max.	g
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HEATER CYCLING LIFE PERFORMANCE

Cycles of Intermittent Operation	2000 min.	cycles
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5654W

Refer to chart at end of section.

**5654/6AK5W/
6096**

Refer to chart at end of section.

5663

Refer to chart at end of section.

5670

Refer to chart at end of section.

5670WA

Refer to chart at end of section.

5672

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Refer to chart at end of section.

5692

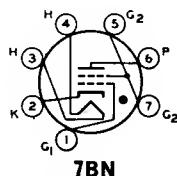
Refer to chart at end of section.

5693

Refer to chart at end of section.

5696**INDUSTRIAL
TYPE****THYRATRON**

Miniature type gas-tetrode thyatron for use in counter-circuit relay applications. Outlines section, 5B; requires miniature 7-contact socket.

**7BN**

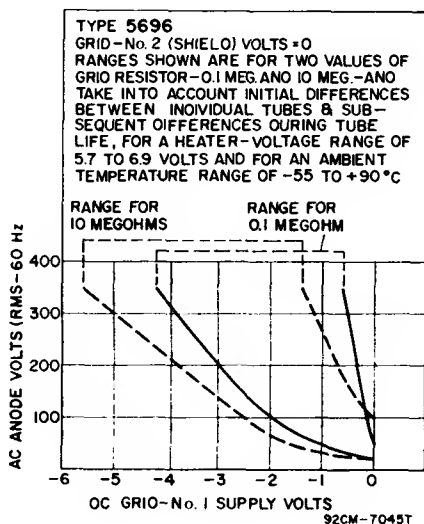
Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.150	ampere
Heater-Cathode Voltage: Peak	+25, -100	volts

Cathode:		
Minimum Heating Time, prior to tube conduction	10	seconds
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Anode	0.03	pF
Input	1.8	pF
Output	0.54	pF
Ionization Time (Approx.):		
For conditions: dc anode volts = 100; grid-No.1 square-pulse volts = +50; peak cathode amperes during conduction = 0.150	0.5	μs
Deionization Time (Approx.):		
For conditions: dc anode volts = 500; grid-No.1 volts = -100; grid-No.1 resistor (ohms) = 1000; dc cathode amperes = 0.025	25	μs
For conditions: dc anode volts = 500; grid-No.1 volts = -13; grid-No.1 resistor (ohms) = 1000; dc cathode amperes = 0.025	40	μs
Maximum Critical Grid-No.1 Current, with ac anode-supply volts (rms) = 350, and average cathode amperes = 0.025	0.5	μA
Anode Voltage Drop (Approx.)	10	volts
Grid-No.1 Control Ratio (Approx.) with grid-No.1 resistor (meg-ohms) = 0; grid-No.2 volts = 0	250	
Grid-No.2 Control Ratio (Approx.) with grid-No.1 volts = 0, grid-No.2 resistor (ohms) = 0	15	

Relay and Grid-Controlled Rectifier Service

MAXIMUM RATINGS (Absolute-Maximum Values)

Peak Anode Voltage:		
Forward	500	volts
Inverse	500	volts
Grid-No.2 (Shield-Grid) Voltage:		
Peak, before anode conduction	-50	volts
Average, during anode conduction	-10	volts
Grid-No.1 (Control-Grid) Voltage:		
Peak, before anode conduction	-100	volts
Average, during anode conduction	-10	volts
Cathode Current:		
Peak	100	mA
Average	25	mA
Surge, for duration of 0.1 sec. max.	2	amperes
Grid-No.2 Current:		
Average	5	mA
Grid-No.1 Current:		
Average	5	mA
Ambient Temperature Range	-55 to +90	°C



TYPICAL OPERATING CONDITIONS FOR RELAY SERVICE

RMS Anode Voltage	117	volts
Grid No.2	Connected to cathode at socket	
RMS Grid-No.1 Bias Voltage	5	volts
Peak Grid-No.1 Signal Voltage	5	volts
Grid-No.1-Circuit Resistance	0.1	megohm
Anode-Circuit Resistance#	5000	ohms

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	10	megohms
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■ Averaged over any interval of 30 sec. max.

□ Approximately 180° out of phase with the anode voltage.

Sufficient resistance, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings.

5696A

Refer to chart at end of section.

5718

Refer to chart at end of section.

5719

Refer to chart at end of section.

5725

Refer to chart at end of section.

5725/6AS6W

Refer to chart at end of section.

5726

Refer to chart at end of section.

5726/6AL5W

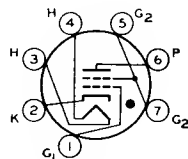
Refer to chart at end of section.

**5726/6AL5W/
6097**

Refer to chart at end of section.

5727**INDUSTRIAL
TYPE****GAS THYRATRON**

Miniature type "Premium" gas-tetrode thyatron for use in relay, grid-controlled rectifier and pulse-modulator applications. Outlines section, 5C; requires miniature 7-contact socket.

**7BN**

Heater Voltage (ac/dc)	6.3 ±10%	volts
Heater Current	0.6	ampere
Cathode:		
Minimum heating time prior to tube conduction	20	seconds
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to anode	0.026	pF
Grid No.1 to cathode, grid No.2, and heater	2.4	pF
Anode to cathode, grid No.2, and heater	1.6	pF
Ionization Time (Approx.):		
For dc anode volts = 100, grid-No.1 volts (square-wave pulse) = 50, peak anode amperes during conduction = 0.5	0.5	μs
Deionization Time (Approx.):		
For dc anode volts = 125, dc anode amperes = 0.1, grid-No.1 resistor (ohms) = 1000, and grid-No.1 volts = -100	35	μs
For dc anode volts = 125, dc anode amperes = 0.1, grid-No.1 resistor (ohms) = 1000, and grid-No.1 volts = -100	75	μs
Maximum Critical Grid-No.1 Current:		
For anode-supply volts (rms) = 460, and average anode amperes = 0.1	0.5	μA
Anode Voltage Drop (Approx.)	8	volts
Grid-No.1 Control Ratio (Approx.) with grid-No.1 resistor (megohms) = 0, grid-No.2 volts = 0	250	
Grid-No.2 Control Ratio (Approx.) with grid-No.1 resistor (megohms) = 0, grid-No.2 resistor (megohms) = 0, grid-No.1 volts = 0	1000	